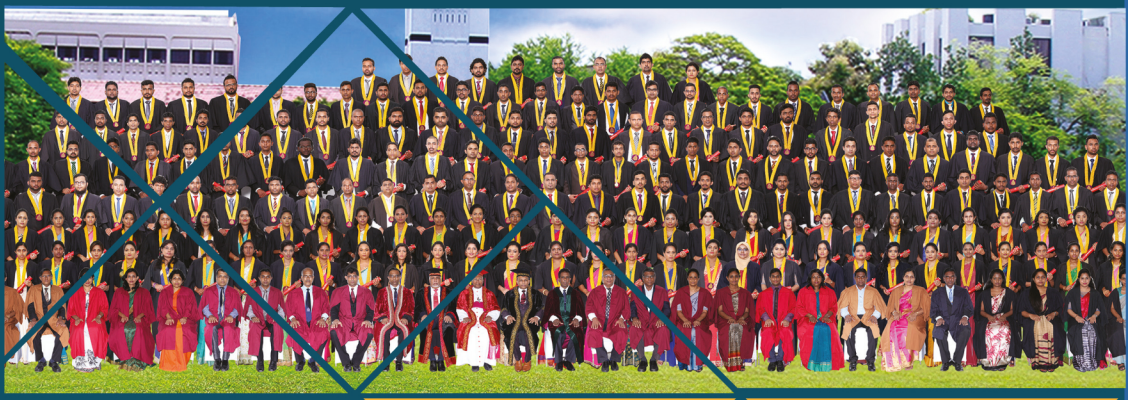
University of Colombo

BIT

STUDENT HANDBOOK - 2019

BACHELOR OF INFORMATION TECHNOLOGY (BIT)
(External Degree Programme)



UCSC

University of Colombo School of Computing

University of Colombo
Sri Lanka

BACHELOR OF INFORMATION TECHNOLOGY (BIT)
External Degree

Student Handbook
Academic Year - 2019

Conducted by
University of Colombo School of Computing

Disclaimer

This handbook is compiled with information received up to December 2018, and is applicable to the students of all Levels of Academic Year 2019

It is hereby informed that this handbook is only for general information and is not for official purposes.

Any information contained herein should be confirmed by reference to the relevant authority.

For the latest version of the handbook please visit our website

http://bit.ucsc.cmb.ac.lk
http://www.bit.lk

VISION & MISSION OF THE UCSC

Vision

Be a Global Leader in Computing, Advancing the Frontiers of new knowledge through Learning and Research.

Mission

To advance and enhance computing knowledge, fostering global strategic alliances, promoting cross disciplinary research, producing socially responsible professionals with entrepreneurial skills, leadership qualities and integrity contributing to position the country as a knowledge hub in the region.

MESSAGE FROM THE VICE CHANCELLOR



The Institute of Computer Technology (ICT), the predecessor of the present UCSC was established in the year 1987. In 2000, ICT took the initiatives to launch the external degree in Information Technology, the Bachelor of Information Technology (BIT) with the anticipation of developing the human resources in information and communication technologies. The BIT provides a well-defined syllabus that aligned with international standard. The syllabus is reviewed and updated regularly to meet the changing requirements of the industry. This degree program enables to secure a wide range of job opportunities for its graduates and has been redesigned according to the policy framework for external and extension programs introduced by University Grants Commission.

With the developments in the area of information and communication technologies as well as the eagerly awaited structural changes in IT education in Sri Lanka, the need of a fully pledged higher educational institute teaching IT and communication related subjects were seriously contemplated by the policymakers of the University. A lot of intellectual inputs were considered at the ensuing discussions on how such issues are to be addressed and finally the University of Colombo School of Computing was established in 2002 replacing the then Institute of Computer Technology (ICT). I will be failing in my duty, if I do not mention the name of the late Professor V K Samaranayake of University of Colombo School of Computing whose services and dedicated contribution neither the ICT nor the UCSC would have become a reality. I am happy to note that the UCSC at present has become a much sought after institution for IT education in Sri Lanka. I would also like to note with pleasure that, under the proper guidance of the present Director, Professor K

P Hewagamage, the academic staff of the UCSC is well-trained with many of them having earned their doctoral degree from highly recognized universities, fellowships and memberships from world-renowned professional associations.

A handbook is always useful not only to the students but to those who wish to have an in-depth knowledge of the activities of the school including the operational mechanism of both academic and administrative spheres. I would like to thank the Handbook Committee of the UCSC for embarking on a very useful and constructive exercise.

As students of this University, I hope that you will derive maximum benefits from the treasured opportunities that will be bestowed upon you and be broadminded responsible citizens in future.

Senior Professor Lakshman Dissanayake
Vice Chancellor of the University of Colombo

MESSAGE FROM THE DIRECTOR



I am honored to welcome all the new students of Bachelor of Information Technology (BIT) degree programme of the University of Colombo on behalf of the management of University of Colombo School of Computing (UCSC). Simultaneously I would like to congratulate all of them for being fortunate to get the admissions for the best higher education centre in computing in Sri Lanka. Since the beginning in 2002, the University of Colombo School of Computing has been held the number one position in Sri Lanka by having the most advanced training resources and experience in information and communication technology.

You have started a new era of higher education and it will be different from your school education. In the university education, the role of the institute has been just to facilitate your learning. Thus UCSC is dedicated to a student centered education which encourages the academic excellence through well defined and gradually updated syllabus. Moreover we have a qualified academic staff to support all of you, by any means necessary to ensure that the students reach their fullest academic potentials. In that manner, since the beginning UCSC has been gradually moving towards the success by following the vision of the UCSC "Be a Global Leader in Computing, Advancing the frontiers of new knowledge through Learning and research". Moreover, UCSC has been doing a great service to the country by fulfilling the increasing demand for IT professionals. In 1985, UCSC introduced computer science as a field of specialization and has produced a significant number of graduates for the IT industry in Sri Lanka. Another significant fact that you have to keep in your mind is the importance of English for the successful completion of the degree. Since all the courses are conducted in English, certain challenges

can be occurred when you are following the BIT programme. Therefore, it is essential to work hard to overcome these barriers.

The beginning of anything is hard. You might face problems trying to adjust to the study programme. But try to be strong and go towards your targets. Finally, I would like to remind all of you that as the best higher education centre in IT in Sri Lanka, we are dedicated in your education and skill development since we regard that the future and the development of our country are depending on you. Providing best professionals, well developed syllabus or the best courses cannot make you an outstanding graduate unless you take the responsibility on your own and become active learners and follow your studies properly and independently. Thus, I hope that all of the new BIT undergraduates will do their best and grow into locally and internationally renowned personalities with innovative and expert minds. Once again, I wish you all the best for the new journey that you are going to commence.

Professor K P Hewagamage
Director of the University of Colombo School of Computing

ACRONYMS

ADMTC	:	Advanced Digital Media Technologies Centre
A/L	:	Advanced Level
BIT	:	Bachelor of Information Technology
CSC	:	Computing Services Centre
DIT	:	Diploma in Information Technology
EDC	:	External Degree Centre
eLC	:	e-Learning Centre
FIT	:	Foundation in Information Technology
G.C.E.	:	General Certificate in Education
GPA	:	Grade Point Average
GPV	:	Grade Point Value
HDIT	:	Higher Diploma in Information Technology
ICT	:	Information and Communication Technologies
IT	:	Information Technology
LMS	:	Learning Management System
MPhil	:	Master of Philosophy
MSc	:	Master of Science
O/L	:	Ordinary Level
PDC	:	Professional Development Centre
PhD	:	Doctor of Philosophy
R&D	:	Research and Development
UCSC	:	University of Colombo School of Computing
UGC	:	University Grants Commission
VLE	:	Virtual Learning Environment

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SECTION 1

INTRODUCTION

1.1 THE UNIVERSITY OF COLOMBO

The history of higher education in Sri Lanka is closely linked to that of the University of Colombo established in the year 1870, as the Ceylon Medical College by the Government of that day under the leadership of Governor, Sir Hercules Robinson. The University of Colombo could claim to have been associated with higher education for over 100 years. This is an important legacy that all undergraduates who join the University of Colombo must be aware of and be proud of.

The vision of the University of Colombo, is to become a centre of excellence of international repute that contributes significantly to the national development and human resource development, particularly in the South Asian region. Conscious of its long traditions as a leading tertiary education institution in the Island, it promotes scholarship and research. It seeks to create and sustain a culture of learning and critical inquiry that respects viewpoint differences, inculcating a sense of social responsibility and service and commitment to democratic values in a plural society.

The University of Colombo is a metropolitan university and the students are at a distinct advantage of being at the hub of cultural, economic and political activities in the country. Since its establishment as a distinct university, it has expanded its departments and programmes, and acquired reputation within the country as well as abroad for academic excellence.

The university has many faculties and institutes which are in great demand for the programmes that they offer for undergraduate and postgraduate students, and for a wider community (*http://www.cmb.ac.lk*). The services of its staff are also increasingly used by the research community, international development agencies and the governmental and non- governmental sectors. Students should feel very privileged to belong to the University of Colombo with its long tradition of excellence in teaching, learning, research and contribution to the community. The University of Colombo started its computing activities in 1967 and today it is the most advanced higher educational institution, in the forefront of human resource development in Information and Communication Technologies in Sri Lanka.

You can find more details about the University of Colombo from its website at *http://www.cmb.ac.lk.*

1.2 THE UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

In September 2002, University of Colombo School of Computing (UCSC) was established by merging The Institute of Computer Technology and the Department of Computer Science both of the University of Colombo, as the first centre of higher learning of computing in Sri Lanka. Its main objective was to promote the computing studies at the University of Colombo, which was commenced in 1967 under the guidance of Late Professor Vidya Jyothi V. K. Samaranayake who was the founding director of University of Colombo School of Computing.

Currently, UCSC offers degree programmes, both at the undergraduate and postgraduate levels in addition to specialized certificate courses. Carrying out research and development work in the computing is also one of the main key areas contributed by the UCSC. In addition, UCSC also contributes the national development by contributing Information Communication development in the country. All these activities are planned and carried out considering the following 6 goals under the strategic plan of UCSC. More details about UCSC including its current activities are regularly published at the http://www.ucsc.cmb.ac.lk

1.3 GOALS OF UCSC

GOAL 1 -	To be a Centre of excellence in teaching and learning computing.
GOAL 2 -	Promote research and development in computing.
GOAL 3 -	To improve the qualities and responsibilities and professionalism of the students / staff.
GOAL 4 -	Enhancement of infrastructure facilities for higher productivity through development of physical resources and human capital.
GOAL 5 -	Enhancement the institutional image through good governance
GOAL 6 -	To contribute to the development of ICT in the society (Social Responsibility)

1.4 UNDERGRADUATE EDUCATION IN COMPUTING AT UCSC

The University Grant Commission has issued instructions to all public universities in the circular 995 (Revised) (URL) to align computing education according to the international classification of five disciplines. Hence, UCSC conducts 4 degree programmes according to the curriculum guidelines of IEEE-ACM namely, B.Sc. [Honors] in Computer Science, B.Sc. Honors in Software Engineering, B.Sc. [Honors] in Information Systems and Bachelor of Information Technology (BIT). Except for BIT degree programmes, all other degrees are internal programmes based on the UGC intake policy and details of those programmes are available at *https://ucsc.cmb.ac.lk/academic-programmes/ug/.*

It is important to mention that UCSC has followed UGC guidelines, including Sri Lanka Qualification Framework (SLQF) levels (*http://www.ugc.ac.lk/en/all-notices/1156-sri-lanka-qualifications-framework.html*) and IEEE-ACM curriculum guidelines for computing degrees (*https://www.acm.org/education/curricula-recommendations)* when developing all these internal and external degree programmes at the undergraduate levels. Hence, all these degrees are acceptable both at national and international level.

1.5 POSTGRADUATE EDUCATION IN COMPUTING AT UCSC

After completing your first degree, you can consider enrolling in a postgraduate degree programme in order to continue your computing education. UCSC offers masters level postgraduate programmes as well as research level postgraduate programmes. Masters degree in Computer Science at the UCSC was initiated in 1990 as a conversion degree programme, but it was later updated as a second qualification for those who have a computing degree as the first degree. Master of Information Technology degree is offered as a conversion degree for those who do not have their first degree in Computing. In addition to that, UCSC has started several specialized masters degree programme in Information Security, Cybersecurity, Business and Data Analytics. You can find further details on postgraduate degree programmes by visiting the UCSC website at www.ucsc.cmb.ac.lk/pg and those programmes are also listed below for your information.

1.5.1 MASTER OF COMPUTER SCIENCE (SLQF LEVEL 9)

The Master of Computer Science programme is designed for computing professionals who already possess a degree in computing and who wish to acquire a postgraduate qualification in Computer Science.

1.5.2 MASTER OF SCIENCE IN COMPUTER SCIENCE (SLQF LEVEL 10)

Master of Science in Computer Science is designed for those who wish to acquire a Computer Science degree with a research focus.

1.5.3 MASTER OF INFORMATION TECHNOLOGY PROGRAMME (SLQF LEVEL 9)

The Master of Information Technology programme is targeted at graduates in disciplines other than computing who wish to pursue a career in an Information Technology related area. This is also suitable for those who wish to specialize in a multi-disciplinary field.

1.5.4 MASTER OF INFORMATION SECURITY PROGRAMME (SLQF LEVEL 9)

The Master of Science in Information Security programme is designed for graduates who wish to acquire a postgraduate qualification in the area of information security. This programme offers mid-career opportunities for those working in the areas of information technology, information system audit and information security.

1.5.5 MASTER OF BUSINESS ANALYTICS (SLQF LEVEL 9)

The Master of Business Analytics is designed for graduates who wish to acquire a postgraduate qualification in data science with the focus on business analytics

1.5.6 MASTER OF CYBERSECURITY (SLQF LEVEL 9)

Master of Cybersecurity is designed considering the network security and digital forensic and the first programme is offered in 2018 as a distance master programme to a group of international candidates funded by Europian Union under Asi@Connect project.

1.5.7 MASTER OF SCIENCE IN BIOINFORMATICS (SLQF LEVEL 10)

UCSC together with the Institute of Biochemistry, Molecular Biology and Biotechnology (IBMBB) offers a partime Masters degree in Bioinformatics. This programme is administered by the IBMBB.

1.6 RESEARCH DEGREES AT UCSC

UCSC also offers research degrees to provide opportunities for candidates who are willing to continue their postgraduate studies through research and development activities. Graduates with first or second class level degrees or masters degree with very good academic record could consider applying those degrees. Current programmes are listed below and more details available in the UCSC website at https://ucsc.cmb.ac.lk/academic-programmes/research-degrees/

1.6.1 MASTER OF COMPUTING BY RESEARCH (SLQF LEVEL 9)

It is a one year fulltime degree programme for graduates who have research experience in their first degree with very good academic records.

1.6.2 MASTER OF PHILOSOPHY (MPhil) IN COMPUTING (SLQF LEVEL 11)

Candidates who have research experience and good record of computing discipline could register master of philosophy degree in fulltime (two years) or Part Time (three years). If they have a good performance after one year of study, they can request to upgrade the degree to Doctor of Philosophy (PhD) in Computing. Details at https://ucsc.cmb.ac.lk/mphil-programme/

1.6.3 DOCTOR OF PHILOSOPHY (PhD) IN COMPUTING (SLQF LEVEL 12)

Candidates who have research degree at the level of MPhil or equivalent could register for PhD in computing for a period of 3 years fulltime. His academic records and research experience will be evaluated to determine the suitability of the candidate and there are scholarships such candidates for these degrees at UCSC. Details at https://ucsc.cmb.ac.lk/phd-programme/

1.7 STRUCTURE OF THE UCSC

The primary activity of the University of Colombo School of Computing is to deliver quality undergraduate and postgraduate degree programmes in computing. The UCSC has three academic departments, five administration and finance divisions and six centres. The academic staff is allocated to the three academic departments based on their specialization and teaching expertise. The main administration and operational units of UCSC are shown in the Figure 1.

Following are the three academic departments based on the research interest.

- Department of Information Systems Engineering (ISE)
- Department of Computation and Intelligent Systems (CIS)
- Department of Communication and Media Technologies (CMT)

1.7.1 ABBREVIATIONS USED IN THE FIGURE 1 (ORGANIZATION STRUCTURE)

BOS: Board of studies,which consisters of **IUD RHD** and **EEP**	**IUD**: Internal Undergraduate Degrees **RHD**: Research and Higher Degrees **EEP**: External and Extension Programmes
Centres:	**eLC**: e-Learning Centre **PDC**: Professional Development Centre **ADMTC**: Advanced Digital Media Technology Centre **CSC**: Computing Service Center **EDC**: External Degree Centre. **CDF**: Centre for digital forensics **NOC**: Network operation Centre

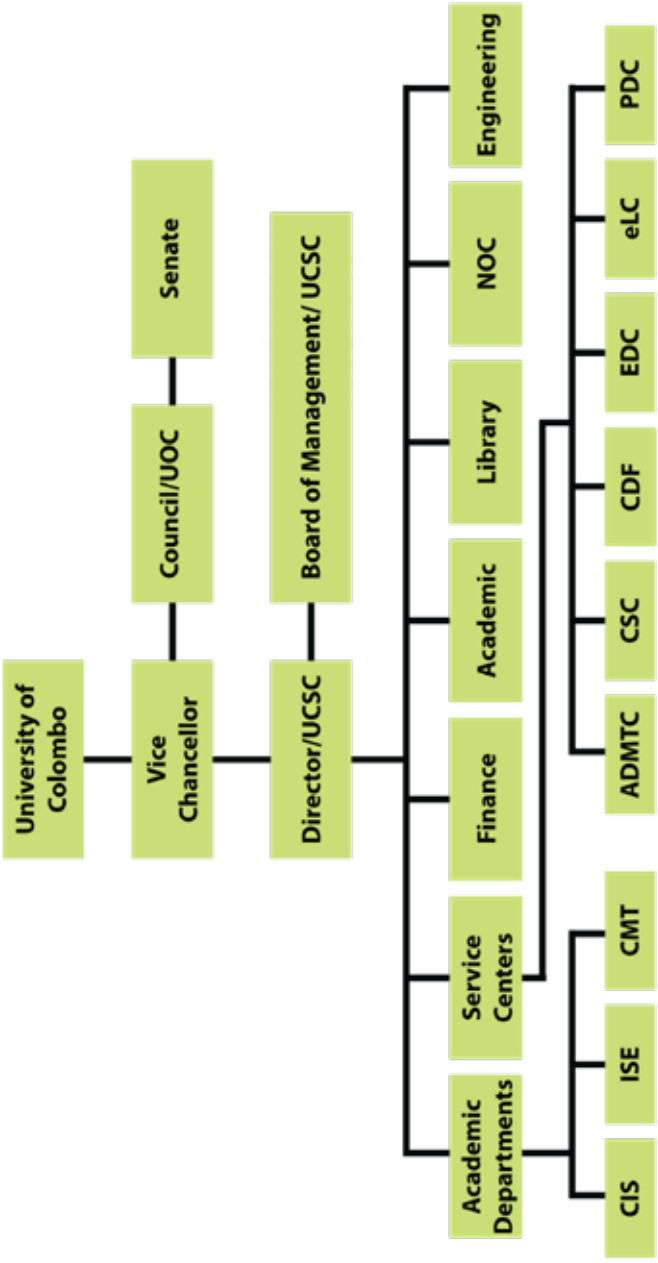


Figure 1a: Structure of the UCSC

1.7.2 EXTERNAL DEGREES CENTRE (EDC)

The main purpose of establishing the External Degrees Centre (EDC) is to facilitate managing the external degree programme, Bachelor of Information Technology (BIT), which is to widen the higher educational opportunities for the students who have been unsuccessful in meeting the competitive eligibility criteria for admission to the state university system. Another reason has been the massive demand from the ICT industry for high quality human resources far exceeding the number provided by the state universities. The BIT degree programme commenced in the year 2000 and has so far produced 2273 graduates and almost all graduates have been absorbed by the ICT industry. Internal students of all state universities have the right to follow BIT degree programme since it is a part time programme. For more details visit the website: *http://www.bit.lk*

1.7.3 e–LEARNING CENTRE (eLC)

The UCSC was identified by donor agencies such as Swedish International Development Agency (SIDA) and European Union Asia Link Programme as an ideal location for a centre of excellence in e-Learning. In 2003, e-Learning Centre (eLC) has established an online learning environment at UCSC. The centre provides necessary support in developing interactive e-Learning content and training. The online virtual learning environment of the BIT degree programme (*http://vle.bit.lk*) is managed by them. For more details visit the eLC website (*http://www.ucsc.cmb.ac.lk/elc*).

1.7.4 ADVANCED DIGITAL MEDIA TECHNOLOGY CENTRE (ADMTC)

Advanced Digital Media Technology Centre (ADMTC) was established with the support of JICA (Japan International Cooperation Agency) in order to implement the "Project for Human Resource Development in Information Technology through capacity building of the UCSC". The centre is equipped with a state-of-the-art digital studio and multimedia laboratory and auditorium. Centre also conducts several training programmes in Multimedia, Web based Application development and Digital Media Production. ADMTC produces many UCSC videos including BIT TV programmes. For more details visit the website: (*http://www.ucsc.cmb.ac.lk/admtc*)

1.7.5 COMPUTING SERVICES CENTRE (CSC)

Training courses ranging from awareness to specific skills such as Java Application Developments using JavaSE, Advanced Java Application Development using JavaSE, Computing for Career Development, Graphic Design & Creativity Development, Software Quality Assurance using Test Automation Frameworks, Linux Systems and Network Administration, and Advanced Multimedia Web Design & Development Techniques are conducted by the CSC during weekday evenings and weekends. Software development unit of the CSC provide assists in automating various processors of the BIT programme. For more details visit the website (http://www.ucsc.cmb.ac.lk/csc).

1.7.6 PROFESSIONAL DEVELOPMENT CENTRE (PDC)

The Professional Development Centre (PDC) of the UCSC was set up to keep a close liaison with IT industry and to improve the academic programmes through industry partnership. The PDC primarily concentrate on improving professional skills of the staff and the internal students, industrial placements and visits for internal undergraduates and promoting inter-cultural harmony. The mission of the Professional Development Centre (PDC) of the UCSC is to produce Computing graduates' having extra-curricular skills such as professional skills, business skills, communication skills, community service skills, innovative capacity and entrepreneurship to pursue successful careers thereby contributing to the socio-economic development of Sri Lanka. For more details visit the website: http://www.ucsc.cmb.ac.lk/pdc

1.7.7 CENTRE FOR DIGITAL FORENSICS (CDF)

Centre for Digital Forensics (CDF) of the UCSC was established in 2011. The advisory panel consists of UCSC and foreign academics. UCSC has played a key role in assisting the Sri Lanka Police and the Criminal Investigation Department since 2003. The centre investigates evidence of digital crimes. For more details visit the website: http://www.ucsc.cmb.ac.lk/dfc



SECTION 2

BIT DEGREE PROGRAMME

2.1 OVERVIEW

Taking into consideration the job opportunities that exist for ICT graduates in Sri Lanka & overseas, the UCSC took the initiative to launch the three year External Degree programme leading towards the award of Degree of Bachelor of Information Technology (External) in the year 2000. This degree programme has been redesigned according to ACM guidelines and Policy Framework for External and Extension programme introduced by University Grants Commission in the year 2010.

The UCSC has advanced training resources and experience in Sri Lanka in the field of ICT education and is the first to offer an External Degree in IT in Sri Lanka. The BIT syllabi are reviewed and updated regularly by considering the international standards such as ACM guidelines and local and global demand of the IT industry. The degree is awarded by the University of Colombo.

UCSC provides a well-defined detailed syllabus that would help to lay a solid foundation on which, a student can build his career in IT. The syllabi will be constantly updated to meet the industry requirements. Model and past question papers, a list of recommended textbooks are made available to the students. In the year 2003, e-learning was introduced to the BIT students through a Virtual Learning Environment (VLE). This was possible through the assistance given by SIDA (Swedish International Development Agency). VLE assists the students in learning through self-evaluating quizzes, learning material and activities.

Further support is given to BIT students through video content available on LEARN TV (http://www.learntv.lk/video/higher-education/ucsc/bit/).

The expertise of more than 25 PhD, 04 MPhil, 05 MSc drawn from the University of Colombo, other Sri Lankan and Foreign Universities and the ICT industry are associated with the programme, which makes the BIT a first in Sri Lanka to benefit from such expertise. Last year, more than 50 training institutes spread over the country currently offer training programmes for the BIT degree.

BIT Programme is designed to:

- produce qualified IT professionals through external mode in addition to the traditional University output

- set professional standards and encourage students to obtain skills in commercial IT applications and in the usage of necessary tools
- enable those who could not enter to a state university to read for a degree in IT due to severe competition in obtaining such a degree from a state university.
- provide an opportunity to those non-graduates already working in IT sector to obtain a formal qualification through self- study

The minimum duration of the BIT degree programme will be 3 academic years.

- **A Diploma in Information Technology (DIT)** will be awarded to a candidate who has obtained a pass for all the Non-GPA courses and a minimum C grade for each GPA course and passed all the continuous assessments as specified in section 4, in Level I.
- **A Higher Diploma in Information Technology (HDIT)** will be awarded to a candidate who has obtained a pass for all the Non-GPA courses and a minimum C grade for each GPA course and passed all the continuous assessments as specified in section 4 in the Level II and has obtained the Diploma in Information Technology.
- **Degree Certificate (BIT)** will be awarded on successful completion of Level I, Level II and Level III examinations and fulfilment of other requirements as specified in section 4 and 6.

Over 37,000 candidates have enrolled for the BIT programme since its inception in year 2000 and the 19th consecutive Academic year is about to commence. Statistics of Diploma/ Higher Diploma & Degree Awardees of the last 18 years are summarized in Table 2a.

	1st Year	2nd Year	3rd Year
	DIT	HDIT	BIT
2000/01	171		
2001/02	299	70	
2002/03	596	148	63
2003/04	572	353	113
2004/05	259	164	103
2005/06	346	154	115
2006/07	532	128	108

2007/08	613	386	138
2008/09	438	310	161
2009/10	366	199	140
2010/11	581	309	129
2011/12	659	262	172
2012/13	618	305	194
2013/14	523	339	225
2014/15	379	227	262
2016	403	151	217
2017	337	110	133
Total	**7692**	**3615**	**2273**

Table 2a: Statistics of Awardees

2.2 INTERNATIONAL RECOGNITION

The e-BIT programme of the UCSC won a Certificate of Commendation in the Education Planner and Administrator Category of the UNESCO ICT in Education Innovation Awards 2007-2008 and awards at NBQSA and e-Swabhimani.

The UCSC was chosen for this award owing to its innovative use of ICT to scale the output of ICT Professionals much needed by the industry. The e-BIT was designed to optimize the use of ICT for communication, registration, delivery of the curricular content, and examination through its website and associated Virtual Learning Environment. Today, it has become the student portal through which one can learn on-line, seeks assistance from facilitators, and communicates with peers in addition to obtaining examination support material and retrieving results. For this reason, the BIT programme has become the premier 'open' and affordable IT degree programme in Sri Lanka.

The success of the e-BIT can be attributed to the efforts of the e- Learning Centre of the UCSC through its research and development (R&D) activities. The curriculum was completely revamped taking into account a new online pedagogy based on a user-centric but collaborative learning model and the constructive alignment paradigm of learning. R&D work in setting up an appropriate Virtual Learning Environment resulted in the adoption and

adaptation of the open source Moodle framework which was customized and localized to form Vidupiyasa – UCSC's "Virtual Learning Environment (VLE) for BIT students". SCORM compatible online learning lessons have been developed based on the redesigned curriculum and made available through the VLE. Additional information regarding the registrations and examinations are made available through the BIT web site. An e-assessment system for formative as well as some summative testing has also been developed and deployed.

2.3 JOB OPPORTUNITIES

The 21st Century would be dominated by ICT and there is a growing need for IT professionals and they are sought-after more than ever before, due to the fast-paced world of computer technology and the increasing dominance of IT skills. This, together with the critical shortage of IT professionals today, translates into opportunities for those who are in IT as well as those who are interested in entering the field. Software Development & ICT Services is one sector where Sri Lanka can do well and have highly satisfactory economic returns, which in turn will benefit the national economy. In this context, we need to heighten public awareness on the potential of IT and increase educational opportunities in the sphere.

Considering the above, from the very beginning, the BIT degree programme was designed and developed to cater to the rising demands of the IT industry. Thus, the courses were developed considering the knowledge and skills required to produce high quality IT professional. As a result, during the last 18 years, the BIT degree programme has been able to maintain its employability rate which is around 90%. According to the latest statistics obtained from the BIT graduates of the year 2018, the employability rate is above 87%. Out of that, 72% are employed on a permanent basis. BIT graduates get an opportunity to work in different sectors such as industry and academia where 58% are employed in the private sector, and 22% are employed in the public sector. Some graduates have even obtained foreign employment opportunities. It shows that the BIT degree programme is capable of catering to the demands of the industry as the majority of the BIT graduates are employed as Software Engineers, QA/Test Developers, Front-end Developers, Business Analyst, Network Administrators, Project Managers, ICT/IT Lecturers, etc. which are among the most sought-out and high-demand areas mentioned by the

Industry Hot Skills Survey 2018. Also, a significant number of graduates who have followed the BIT degree programme was able to enter into postgraduate programmes in local as well as foreign universities because of the strength of the curriculum and some of them have even completed doctoral studies as well.



SECTION 3

REGISTRATION

3.1 ADMISSION REQUIREMENTS

The following admission requirements will be effective for Academic Year 2019.

No person may be registered as a candidate for the Examinations leading to the Degree unless he/she satisfies (A) and (B) below:

(A) he/she

(i) has obtained three passes in the G.C.E. Advanced Level Examination (New Syllabus) in one sitting or four passes in the G.C.E. Advanced Level Examination (Old Syllabus) in one sitting;

OR

(ii) has obtained any other educational qualification deemed equivalent to the qualification referred to in paragraphs (i) above by the Senate on the recommendation of the Academic Syndicate of the UCSC and has passed a Selection Test conducted by the UCSC;

OR

(iii) has passed all the theoretical components of the Foundation in Information Technology Programme conducted by the UCSC;

AND

(B) he/she

(i) has obtained at least six passes in G.C.E. Ordinary Level with three Credits including for Mathematics and English;

OR

(ii) has obtained any other educational qualification deemed equivalent to the qualification referred to in paragraph (B)(i) above by the Senate on the recommendation of the Academic Syndicate of the UCSC.

3.2 SELECTION PROCEDURE

Calling of applications for the Diploma in IT of the BIT degree programme will be published in the press, social media and the BIT website annually. In accordance with such notices, prescribed application forms should be completed online, from the BIT website and forwarded to the External Degree Centre (EDC) of the UCSC with payment of appropriate fees in section 8.1 (see Table 8a). Degree path is shown in Figure 3a.

3.3 REGISTRATION

The selected students will be informed to register for the Level I of the BIT degree programme. Initially students will be granted only a provisional registration.

Registration proper would be given only after the qualifications (e.g. Advance Level, Ordinary Level and other) are verified (e.g. by Examinations Division of the UCSC) or other equivalent qualifications are accepted by the University Authorities. Registration is valid for a period of one academic year. The students have to pay the registration fee annually to keep their registration valid and sit for examinations.

The registration of a student is cancelled, if he/she is not registered for 3 consecutive academic years. This rule will be effective irrespective of the level of registration from 2018 onwards. The maximum period a student can attempt an evaluation in each level of study (Level I, II or III) shall not exceed four (4) consecutive years from the initial registration of a particular year of study. If a student fails to do so, he/ she should be registered as a new student.

Registering for BIT @UCSC will not disqualify any student from registering for any other internal or external degree offered in any other state university.

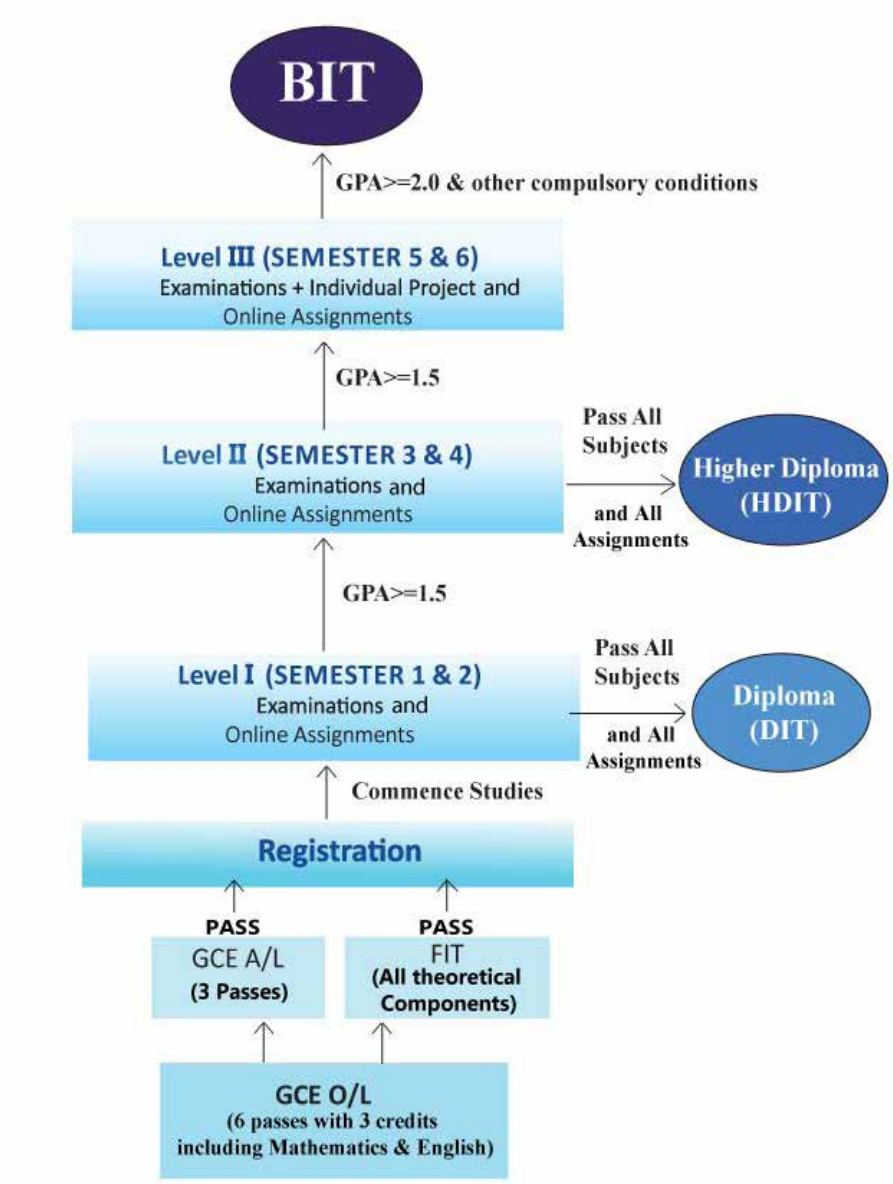


Figure 3a: *Degree Path*

3.3.1 DOCUMENTS REQUIRED FOR PROVISIONAL REGISTRATION

Originals & Photo copies of the following:

- Birth Certificate
- National ID Card (for Sri Lankan citizens)/valid Passport (for foreign nationals)
- Educational certificates
  - (a) For Candidates who have obtained three passes at the Advance Level examination in one sitting
    - (i) Advance Level Certificate
    - (ii) Ordinary Level Certificate(s)
  - (b) For Candidates who have FIT and Ordinary Level
    - (i) Confirmation letter from FIT and
    - (ii) Ordinary Level Certificate(s)
  - (c) Proof of payment of Registration Fee for Level I
  - (d) **Three recent colour** photographs of Passport size on red background
    - (i) Two photographs with your signature on the reverse of the photograph
    - (ii) One photograph pasted on a sheet of A4 paper and get it attested by an ***authorized person**. The signature and the seal of the authorizing person should be placed across the photograph so as not to cover the face of the candidate.
    - (iii) Candidate's ears should be clearly visible in each and every photo

**Head or Retired Head of a Government/Director Managed approved school, Grama Niladhari of the Division, Justice of Peace, Commissioner of Oaths, Attorney at Law, Notary Public, Commissioned Officer of the armed forces, Staff Officer of Govt./ Corporation, the Chief Incumbent of a Buddhist Vihara, A religious Dignitary of standing of any other religion*

3.3.2 REGISTRATION NUMBER

The registration number will be given to the students at the registration and a BIT Identity Card will also be issued. All inquiries regarding any matter pertaining to the BIT degree programme must be accompanied by this registration number.

3.3.3 BIT IDENTITY CARD

The BIT Identity Card remains as a property of the student until such time; the student obtains the Degree of Bachelor of Information Technology. Thereafter, the student should return it to the External Degree Centre (EDC) of UCSC. If the BIT Identity Card is lost, a duplicate will be issued on payment. For payments refer (Section 8). An affidavit should be produced to obtain the duplicate. **Students will not be allowed to sit for an examination without a valid BIT Identity Card.**

3.3.4 CANCELLATION OF REGISTRATION

Any student at his/ her request may obtain cancellation of his student registration. In such an event the UCSC will retain 25% of the registration fee provided a written request will be made within 30 days from the closing date of registration. Otherwise no refund is made. No requests for cancellation will be entertained from students awaiting the results of an examination or pending disciplinary action in respect of any examination malpractice. If a registration is cancelled, the BIT ID card is necessary to hand over to the EDC.

3.3.5 RENEWAL OF REGISTRATION

All students are required to renew their registration within a prescribed period after the release of results of Level I, II and III examinations. Renewal process is done online and the generated payment voucher should be used to make the payment. No other mode of payment will be accepted. Already registered students need to renew their registrations before the 31st of December, unless their registration depends on the release of results. Students will have to inform whether they have to be registered/re- registered for the next academic year depending on their examination results. A student have no right to claim to sit any examination after expiry of period of registration. Hence a student whose registration has lapsed must apply to the EDC If a student who is already registered for the BIT programme, and wishes to postpone his/her

registration, he/she will have to inform the EDC for renewal of registration. To access online material and to take part in online assessments, the renewal of registration must be done before 31st December.

If a registered student would not continue his/her registration for any academic year will have to renew student registration by paying the arrears, up to a maximum of Rs. 5,000/=.

The students should complete any academic year within four years. If a student fails to do so, he/ she should be registered as a new student.

3.4 VIRTUAL LEARNING ENVIRONMENT (VLE) FOR BIT

You will be given a login (a username and a password) to the VLE for BIT at the registration and this login account is renewed at the beginning of each academic year of the BIT programme. http://vle.bit.lk is the Virtual Learning Environment established for the BIT students. You are requested to refer/check the VLE frequently for the programme and course level information.

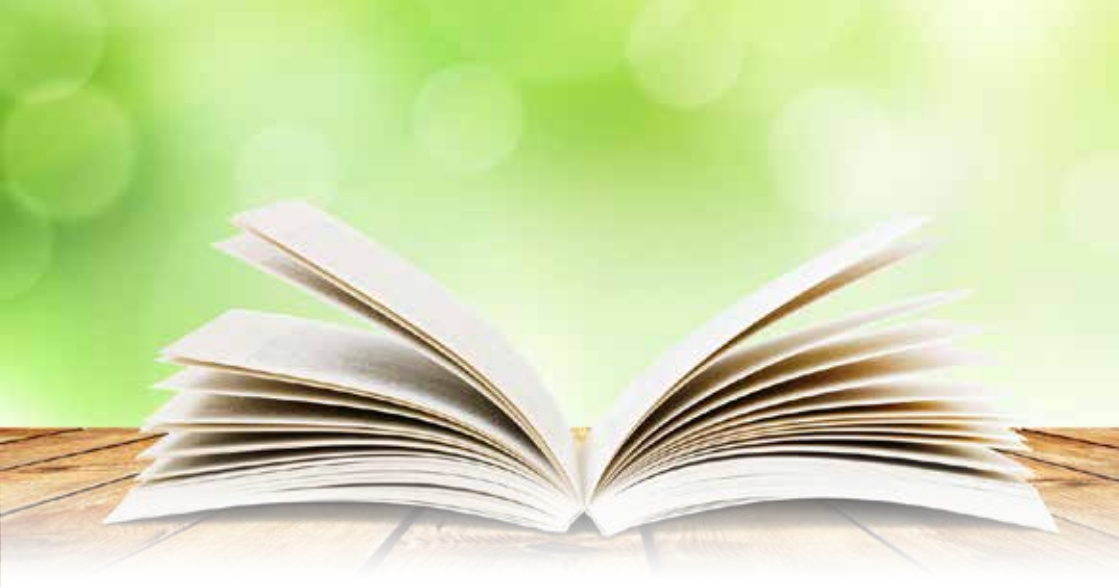
Course materials, online assessments, online assignments, past papers, course related notices, announcements, deadlines for various submissions, extensions, exam time tables, notices about exam applications, admission cards and many other useful information are available at the VLE.

When new students are registered, they will be given a Student Registration Number which will be the username to access the VLE for BIT. You will be given a password once the registration process completes successfully. You must have an email address to access the services of VLE for BIT.

Each course in the BIT programme has two or more online assignments. In order to obtain the diploma certificates, you should pass all the assignments in the relevant level of the degree programme.

The students, who are registered for the Level III Software Development Project, are given a separate login to the Project-VLE (http://vle.bit.lk/project) for project related studies/submissions.

If there is any issue with accessing the VLE, the students should contact the VLE Administrator through email (admin@vle.bit.lk), indicating your registration number and the NIC number.
During the office hours, students could contact EDC, UCSC, and eLC using the contact numbers given in the Contact section.



SECTION 4

COURSE STRUCTURE

4.1 OVERVIEW

This programme consists of three levels: Level I, Level II and Level III with two semesters in each level. All courses offered in the first two levels are compulsory whereas in level Three, a number of optional courses are offered in addition to the compulsory courses. Some of the compulsory courses offered are Enhancement courses which are designed to strengthen students' communicational, mathematical & Personal Computer application skills. Enhancement courses are identified using EN as first two letters of course code.

Candidate must select a minimum of 30 credits from each level including all compulsory courses. All courses in Level I and Level II (Table 4a and Table 4b) are compulsory and each of them has online assignments and all enhancement courses in Level I and III have compulsory online assessments as well. In order to pass the enhancement courses, a candidate will need to pass both **online assessment AND the written exam paper** with other subject exam papers.

LEVEL I (All are Compulsory Subjects)			
Code	**Name**	**Semester**	**Credits**
IT1105	Information Systems & Technology	1	3
IT1205	Computer Systems I	1	3
IT1305	Web Application Development I	1	3
EN1101	Communication Skills	1	3
EN1201	Introductory Mathematics	1	2
EN1301	Personal Computing	1	2
IT2105	Mathematics for Computing I	2	3
IT2205	Programming I	2	4
IT2305	Database Systems I	2	4
IT2405	Systems Analysis & Design	2	3
Total Number of Credits			**30**

Table 4a: Level I Courses

LEVEL II (All are Compulsory Subjects)			
Code	**Name**	**Semester**	**Credits**
IT3105	Object Oriented Analysis & Design	3	3
IT3205	Fundamentals of Software Engineering	3	3
IT3305	Mathematics for Computing II	3	3
IT3405	User Interface Design	3	3
IT3505	Web Application Development II	3	4
IT4105	Programming II	4	4
IT4205	Information Technology Project Management	4	3
IT4305	Rapid Software Development	4	4
IT4405	Computer Networks	4	3
Total Number of Credits			**30**

Table 4b: Level II Courses

Compulsory courses (C) and optional courses (O) are offered in Level III (Table 4c).

LEVEL III (Select all Compulsory (C) Subjects and any collection of Optional (O) Subjects of your choice to complete 30 credits)				
Code	**Name**	**Semester**	**Credits**	**Select**
IT5105	Professional Issues in IT	5	3	C
IT5205	Information Systems Security	5	3	C
IT5305	Computer Systems II	5	3	O
IT5405	Fundamentals of Multimedia	5	3	O
EN5101	Fundamentals of Management	5	2	C
IT6105	Software Development Project	5 & 6	8	C
IT6205	Systems & NetworkAdministration	6	3	C
IT6305	e-Business Application	6	3	O
IT6405	Database Systems II	6	3	C
IT6505	Middleware Architecture	6	3	O
EN6502	Introduction to Entrepreneurship	6	2	C
Total Number of Credits			**36**	

Table 4c: Level III Courses

4.2 COURSE DESCRIPTIONS

LEVEL I – SEMESTER 1

IT1105: Information Systems & Technology

Information Systems and Technology course aims to develop an understanding of the components of Computer Based Information Systems (CBIS), their functions and types of CBIS used in organizations. Furthermore, it aims to provide a general understanding of the Information Systems (IS) development process as well as ethical and security issues associated with the use of information systems.

Learning/Teaching Hours: 45

IT1205: Computer Systems I

On completion of this course, students will obtain an overall knowledge of the constituents parts of the computer system, leading to basic to the basic skills to install, configure and also lay the foundation to do further advance studies in aspects of computer architecture and operating systems.

Learning/Teaching Hours: 45

IT1305: Web Application Development I

This module on web application development provides an introduction to the basic concepts, methods and tools needed to develop basic web sites. After successful completion of this module, students will be able to describe the fundamental concepts of the Internet and the Word Wide Web, employ HTML and CSS to create web pages, employ client-side programming using JavaScript to add interactivity to web pages and describe and employ the fundamental concepts of XML.

Learning/Teaching Hours: 45

EN1101: Communication Skills

This course consists of 8 lessons that help students improve their reading, writing, listening and speaking skills in English that are necessary for them to continue their studies or gain employment. After successful completion of this course students will be able to write clearly with correct formation of letters, type accurately with moderate speed, use mechanics of writing effectively, write essays, reports, cv's, cover letters and questionnaires accurately, exchange information and talk confidently with others, make effective business calls via the phone, face interviews confidently, conduct interviews effectively, make attractive presentations, communicate effectively with the public, listen and retrieve information using listening techniques, retrieve necessary information

from fiction and non-fiction texts and summarize & paraphrase a given text.
Learning/Teaching Hours: 45 (non-GPA)

EN1201: Introductory Mathematics

This course provides core mathematical knowledge and skills that are essential for a student of ICT. After successfully completing this course, students will be able to illustrate analytical thinking apply mathematical concepts to ICT demonstrate problem solving skills.
Learning/Teaching Hours: 30 (non-GPA)

EN1301: Personal Computing

This course starts with all basic computer operation skills and moves towards the advanced information including file handling, data processing, information presenting, graphic and web designing methods using Computer Applications. After successful completion of this module, students will be able to handle and manage files and folders in a computer, identify different types of applications and their usage, create documents using a word processing application, create spreadsheets using a spreadsheets application, create databases using a database application, design presentations using a presentation application, design and edit graphics using a graphic design application.
Learning/Teaching Hours: 30 (non-GPA)

LEVEL I – SEMESTER 2

IT2105 : Mathematics for Computing I

On completion of this course, students will be able to obtain the skills of discrete mathematics needed to analyze, model and solve problems in Information and Communication Technology.
Learning/Teaching Hours: 45

IT2205: Programming I

On completion of this course, students will be able to design and develop programs for specified tasks using Java as an Object Oriented Programming Language.
Learning/Teaching Hours: 60

IT2305: Database Systems I

On completion of this course, students should be able to design and develop a database eliminating anomalies using a commercial database product applying fundamentals and concepts of database management systems.
Learning/Teaching Hours: 60

IT2405: Systems Analysis and Design

After successfully completing this module you will be able to describe fundamental concepts and trends that provide the context of Systems Analysis and Design methods and to apply the techniques practically to analyze and design an information system.

Learning/Teaching Hours: 45

LEVEL II – SEMESTER 3

IT3105: Object Oriented Analysis and Design

This course starts with object-oriented concepts and moves towards the preparation of standard UML diagrams using an UML modeling tool. After successfully completing this course you will be able to describe Object Oriented Analysis and Design concepts and apply them to solve problems and prepare Object Oriented Analysis and Design documents for a given problem using Unified Modeling Language.

Learning/Teaching Hours: 45

IT3205: Fundamentals of Software Engineering

Software engineering is a subject that emerged recently as a result of the need to manage software projects that are rising in demand day by day. Software is developed in diverse areas and the fact that a systematic approach is required to manage their development spawns this interesting subject of study. This course is designed to provide the students with the basic competencies required to identify requirements, document the system design and maintain a developed system. It presumes a general understanding of computers and programming which are covered in the first and second semester of the degree.

Learning/Teaching Hours: 45

IT3305: Mathematics for Computing II

This course covers mathematical concepts required to understand and successfully complete the other courses in the degree program and strengthen the mathematical foundation required in solving problem. After successfully completing this module the student will be able to apply mathematical concepts and solve problems in the areas of matrices, sequences & series, vectors, and differentiation & integration and solve statistical problems involving discrete & continuous probability distributions.

Learning/Teaching Hours: 45

IT3405: User Interface Design (UID)

A key component to the discipline of Information Technology is the understanding and the advocacy of the user in the development of IT applications and systems. IT graduates must develop a mind-set that recognizes the importance of users and organizational contexts. They must employ user-centered methodologies in the development, evaluation, and deployment of IT applications and systems. In the course, the student is supposed to understand the role of user in the development of Information Technology (IT) applications/systems with respect to user interface (UI) which facilitates the interaction. The student is supposed to recognize the importance of users and organizational contexts. They must employ user-centered methodologies in the development, evaluation, and deployment of IT applications and systems. Hence, this course covers areas such as human factors, ergonomics, user-centered design, task analysis, usability and accessibility, user task analysis, required for an Information Technology degree programme.

Learning/Teaching Hours: 45

IT3505: Web Application Development II

This module on web application development provides an insight to the server-side web development technologies along with the advance features, methods and tools needed to add interactivity to rich internet applications. After successful completion of this module students will be able to describe the fundamental and advanced concepts of PHP, describe the MVC architecture, employee PHP frameworks to create web applications, employ Advanced features of client-side programming using JavaScript and Ajax to add interactivity to web pages and employee JavaScript libraries in web pages.

Learning/Teaching Hours: 60

LEVEL II – SEMESTER 4

IT4105: Programming II

This course includes the essential components of data structures and algorithms, which can be used to manipulate data considering the computer's memory and its intrinsic constraints. Candidate should be able to implement the learnt concepts using the Java programming language. After successful completion of this course, students will be able to use common data structures used in applications, common searching and sorting algorithms and handle problem solving activities in connection with data structures and algorithms.

Learning/Teaching Hours: 60

IT4205: Information Technology Project Management

Knowledge of the concepts, theories, methodologies and techniques of software project management as well as related skills could be gained from the successful completion of this course. After successful completion of this course students will be able to demonstrate knowledge of project management concepts, methodologies and techniques, and actively participate as a manager or member of an Information Technology Project.

Learning/Teaching Hours: 45

IT4305: Rapid Software Development

This is one of the courses designed for Semester 4 of the Bachelor of Information Technology Degree program. This course focuses on the software development process using Agile approach. Students will study Agile approaches such as Scrum, Extreme Programming, Lean, and Kanban. The lifecycle and practices of Scrum and Extreme Programming will be covered in detail.

Learning/Teaching Hours: 60

IT4405: Computer Networks

This course provides a comprehensive insight into the fundamental concepts in data communications, computer network systems and protocols both fixed and mobile, on how to design simple networks and a review of emerging trends in the networking field. Computer Network security is not covered here.

Learning/Teaching Hours: 45

LEVEL III– SEMESTER 5

IT5105: Professional Issues in IT

In addition to technical skills, an IT professional must understand the social and professional context of information technology and computing, and adhere to ethical codes of conduct. This knowledge area covers the historical, social, professional, ethical and legal aspects of computing. It identifies how teamwork is integrated throughout IT and how IT supports an organization. It also stresses professional oral and written communication skills.

Learning/Teaching Hours: 45

IT5205: Information Systems Security

This is one of the compulsory courses designed for Semester 5 of the Bachelor of Information Technology Degree program. This course on Information Systems Security focuses on introducing the concepts, principles, techniques and methodologies required to design and assess the security of information exchange over complex networks, information systems and applications.

Learning/Teaching Hours: 45

EN5101: Fundamentals of Management

This is a compulsory Enhancement course offered in Semester 5 of Bachelor of Information Technology degree program. This course helps learning-partners to understand the basic concepts and theories of management and to know how these theories and concepts could be applied in different types of organizations in order to achieve their goals efficiently and effectively.

Learning/Teaching Hours: 30 (non-GPA)

IT5305: Computer Systems II (Optional)

Computer Systems II is intended to cover selected concepts of computer architecture and operating systems and the system concepts that support emerging scenarios of cloud and service-oriented computing, which are relevant to an IT degree holder. After successfully completing this course you will be able to understand the platform dependency of software performance, appreciate the emerging paradigms of multicore systems and virtualization that enables cloud computing, in making accurate decisions on applicable software paradigms, understand that parallel applications have to be explicitly designed and not merely expected as an outcome of parallelism in hardware and acquire basic skills in systems programming.

Learning/Teaching Hours: 45

IT5405: Fundamentals of Multimedia (Optional)

This is an optional course designed for Semester 5 of the Bachelor of Information Technology Degree program. This course provides the most essential skills in handling multimedia tools and designing multimedia content in a development environment. After successful completion of this course students will be able to describe the key concepts in current multimedia technology and develop dynamic and interactive multimedia software titles.

Learning/Teaching Hours: 45

IT6105: Final Year Project

The software development project is by far the most important course which must be completed successfully in order to graduate from the BIT degree programme. It is an individual project which should be carried out considering a real client who needs a software system based on a set of requirements. It is an eight credits course which provides the opportunity for a student to demonstrate knowledge and skill acquired and to put into practice some of the techniques that have been taught throughout the degree programme.

Students have to register for the Software Development Project separately at the beginning of the Level III and then have to follow the guidelines and the deadlines given in the course. The final evaluation consists of viva and

demonstration of the software product that will be held at the end of the academic year. Both the software product and dissertation will be examined based on the project guidelines.
Learning/Teaching Hours: Over 300

LEVEL III– SEMESTER 6

IT6205: Systems & Network Administration

This is a compulsory course designed for Semester 6 of the Bachelor of Information Technology Degree program. This course on Systems & Network Administration focuses on to provide theoretical & practical knowledge required to perform administration of computer systems and networks. After successful completion of this course students will be able to: Describe the role/ scope of a system and network administrator, Install various operating systems, Manage computer systems and undertake operational tasks, Provide network services to users, Apply scripting tools for automating system administration, Describe the virtualization.
Learning/Teaching Hours: 45

IT6405: Database Systems II

Database System II is one of the compulsory courses in Semester 6. This course is Database System II is one of the compulsory courses in Semester 6. This course is built on the knowledge gained through the Database System I. Aim of this course is to gain the knowledge on advanced database technologies. After successful completion of this course, students will be able to: create stored procedures and triggers, describe data storage & access and manipulate query processing techniques, demonstrate transaction processing techniques of database systems, determine designs for distributed databases.
Learning/Teaching Hours: 45

EN6502: Introduction to Entrepreneurship

This course is introduced to enhance the student's awareness, and knowledge in the domain of entrepreneurship. This course is not going to assess the real skill of entrepreneurship but it will help students to improve the subject knowledge required in the domain. Main objective of course is to show how students could apply knowledge and skill of entrepreneurship to apply in a business opportunity. Their experience in ICT would be a special advantage to achieve the outcomes of the course. We expect that this course will help some students who may consider starting their own companies in the ICT sector.

This is a compulsory course which should be completed before the graduation. The course is offered in the sixth semester as a non-GPA but it carries two academic credits.

Learning/Teaching Hours: 30 (non-GPA)

IT6305: e-Business Applications (Optional)

This course provides a sound understanding of the applications and technologies in e-Business. It describes the concepts in e-Business, the Business applications, marketing on the web, the new revenue models and latest payment mechanisms, legal issues related to B2C (Business to Consumer) and B2B (Business to Business) applications, realize Ethics and Professional Issues in an e-Business Environment and prepare themselves to work in an e-Business environment in the global market.

Learning/Teaching Hours: 45

IT6505: Middleware Architecture (Optional)

The aim of this course is to gain the knowledge on different middleware architectures and related concepts. After successful completion of this course, students will be able to describe fundamental concepts of Network and Distributed/ Computing, describe IT architecture and Middleware, analyze and compare different categories of middleware and learn about their architectural models, describe and analyze different procedures in RPC (remote procedure calls), understand basic message queuing concepts in nexus to middleware, define the functionality and requirements of a Distributed Object, describe and analyze object-oriented middleware, describe and analyze different procedures in CORBA and Java RMI, understand basic processes of Web services, analyze and build systems that use RESTFul Web services.

Learning/Teaching Hours: 45

Detailed Syllabus for each of the above courses are available at the :
http://www.bit.lk/index.php/examination/course-structure/



SECTION 5

EXAMINATIONS

5.1 MEDIUM

Medium of Examinations is English. Any part of the answer script written in any other language will not be marked.

5.2 EXAMINATION DATES

Examinations will be held on Semester basis, twice within an Academic Year, starting during May/June and September/October respectively. The Level III project evaluation will be held in November/December.

5.3 APPLICATIONS TO SIT THE EXAMINATIONS

Applications for examinations will be entertained from prospective candidates who possess all the requisite qualifications via the BIT website. Refer examination criteria (see Section 5.4) for eligibility. Examination application forms should be completed online and system generated application and the payment voucher should be printed and submitted to the BIT office. Exam fee will be non-refundable and non-transferrable. Applicants should download and print their examination admission cards and bring them to the examination centre with attestation. Students are requested to refer the BIT website regularly for examination schedule updates and notices.

Important

Examination Application may be rejected on the following grounds:

(i) Not possessing all the requisite qualifications for the examination concerned

(ii) Not applying on prescribed online forms

(iii) Not submitting the system generated application and payment voucher on or before the closing date of applications

(iv) Invalid Registration

(v) Non-payment of Registration and Examination fees

(vi) Pending inquiries

(vii) Incomplete or inaccurate application form

5.4 EXAMINATION CRITERIA

TThe Board of Examiners may test any candidate by means of written / electronic / oral / practical examination or any other form of evaluation.

Each course (as set out in section 4 above) examination leading to the award of the Degree of Bachelor of Information Technology, carries a maximum mark of 100.

A candidate shall not re-sit for a course examination, for which he/she has already obtained a grade of "C" or above.

The pass mark for course examination shall be 40%.

5.4.1 *ONLINE ASSIGNMENT AND ASSESSMENT CRITERIA*

1.Online assignments of all Level I and Level II courses (Semester 1, 2,3 and 4)

A candidate will have to obtain

- At least 40% from each assignment in a GPA course (i.e. assignment 1 **AND** assignment 2 of a particular GPA course) to successfully **PASS** the online assignment component of that course.

- At least 50% from each assignment in a non-GPA course (i.e. assignment 1 **AND** assignment 2 of the enhancement course) to successfully **PASS** the online assignment component of that course.

Successful completion of this online assignment component of each course (GPA or non-GPA) is a compulsory requirement to obtain the Diploma/Higher Diploma at the end of the academic year.

2. Online assessments of all enhancement courses (semester 1, 5 and 6)

A candidate will have to complete an "online assessment" (apart from the online assignments already conducted in the Level I and Level II VLE courses) for all the enhancement courses conducted in semester 1, 5 and 6.

A candidate will get 2 weeks and **only 1 attempt** to complete this online assessment on or before the given deadline. Deadlines will be published as "Announcements" in the BIT and VLE websites.

Please note that in order to pass the enhancement courses (a compulsory requirement to obtain the BIT degree), a candidate will need to pass this **online assessment AND the written exam paper** with other subject exam papers. When a candidate apply and pay for the examinations of the enhancement courses he/she will be eligible to take the online assessments. (No separate payment is required for online assessment.) Please note that **ONLY** those who apply and pay for the enhancement course exams are allowed to take the online assessments soon after the exams.

If a candidate do not pass any one of the components (online assessment **OR** the written exam paper) of the enhancement course examination, he/she will receive a **FAIL** grade for that particular enhancement course and he/she will have to apply and pay again for the online assessment **AND** the written paper to pass the course successfully. Marks of any of these components will not be released and will not be able to carry forward for the next academic year.

Therefore, even if a candidate has passed the online assignments of an enhancement course but failed the course in a previous attempt, he/she will have to request for VLE access when registering for an academic year to attempt the online exams and to receive notices regarding these online components.

5.4.2 *LEVEL I EXAMINATION*

Each candidate shall sit during his Level I study, number of courses (as specified in section 4 above), relating to semester 1 and semester 2 and be subjected to continuous assessment.

Any candidate who obtained a minimum GPA (Grade Point Average) of 1.5 and other requirements (if any), at the Level I course examinations may proceed to and register for the Level II.

Note that enhancement courses are Non-GPA.

5.4.3 LEVEL II EXAMINATION

Each candidate shall sit for number of courses (as specified in section 4 above), relating to semester 3 and semester 4 and be subjected to continuous assessment during his/ her Level II study.

Any candidate who obtained a minimum GPA (Grade Point Average) of 1.5 and other requirements (if any), at the Level II course examinations may proceed to and register for the Level III.

5.4.4 LEVEL III EXAMINATION

Each candidate shall sit for number of courses (as specified in section 4 above), relating to semester 5 and semester 6 during his/ her Level III study.

5.4.5 LEVEL III PROJECT EVALUATION

A list of candidates who have submitted the Level III project dissertation on or before the defined deadline and whose dissertation satisfied the minimum requirements will be published as the eligible candidates at the end of October. The project evaluation for the eligible candidates will be done in two stages. In the first stage, the students should appear for the viva and code evaluation and in the second stage students should appear for the dissertation evaluation. Exact evaluation dates for each candidate will be published in the BIT website and the project VLE before the examination dates.

5.5 GRADING SYSTEM AND GRADE POINT AVERAGE

The Range of Marks and the corresponding Grades and Grade Point Values (GPV) of the Academic Courses and the Project is given below.

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

The Grade Point Average (GPA) of a candidate shall be calculated using the following equation -

$$GPA = \frac{\sum(\text{GPV of CC} * \text{No.of credits of CC}) + \sum(\text{GPV of OC} * \text{No.of credits of OC})}{\text{Total number of Credits for the program}}$$

Where CC stands for Compulsory Course and OC stands for required Optional Course. When calculating the GPA, additional optional courses taken are disregarded. The GPA is rounded to the second decimal place.

A student shall be deemed to have 'completed' a course or a component of a course if he/she has received a Grade in respect of the evaluation of the course or such component. The Enhancement Courses shall be graded in terms of the following scheme.

Grading Scheme for Enhancement Courses

Range of Marks	Grade
50-100	PASS
00-49	FAIL

The Enhancement Courses shall not contribute to the calculation of GPA.

5.6 EXAMINATION ADMISSION CARDS

Before a minimum of one week prior to the commencement of the examination, the admission cards for the examination will be issued for all the eligible candidates through the web site. In the event of a candidate having any issue related to the admission he should inform the EDC of UCSC immediately. Failing that candidate will not be allowed to sit the examinations.

5.7 OTHER REQUIREMENTS

Those candidates who are referred or re-referred must of necessity obtain a pass in the relevant of such course examination in accordance with examination criteria. A candidate can appear for any course examination until either he/she obtains a pass in the course or completes the degree programme. However, a student shall not re-sit a course examination, for which he/she has already obtained a grade of "C" or above.

5.8 EXAMINATION RULES AND INSTRUCTIONS TO CANDIDATES

A candidate when sitting an examination must at all times have in his possession his admission form and his BIT Identity Card. In case the BIT Identity Card is not produced, when called for (at an examination), a student is liable to have his candidature cancelled. In the course of an examination, if by any chance the BIT Identity Card is lost, steps must be taken immediately to inform the Coordinator of such loss and have a duplicate procured.

A detailed instruction sheet along with the examination admission card will be issued for all the candidates.

In the event an examination malpractice is proved the following punishments are meted out:

- Cancellation of examination candidature
- Suspension/Cancellation of registration
- Debarring from sitting the examination for a stipulated period of time with or without a fine being imposed
- Any other punishment meted out by the Senate of the University of Colombo

Some of these malpractices are:

- Having on one's possession or near oneself notes, diagrams, articles etc. irrespective of its relevance to the examination.
- Removing from the examination hall stationery, tables, etc. supplied by the University
- Copying
- Impersonation
- Other forms of dishonesty and unruly behaviour
- Obtaining or attempting to obtain improper assistance or cheating or attempting to cheat
- Aiding and abetting the commission of any of these offences
- Non adherence to examination procedures/rules

5.9 RELEASING OF RESULTS

Results will be published in the BIT website. Results are expected to be released on semester basis. However, the process may take 3-4 months from the last examination paper.

5.10 RE–SCRUTINY OF ANSWER SCRIPTS

Under no circumstance and for no reason what so ever will there be a re-scrutiny of answer scripts. UCSC will publish the model answers on the BIT Virtual Learning Environment after relevant examinations. Student feedback are considered before commencing paper marking. Any queries regarding the model answers may be made within the specified period to the Academic Coordinator of BIT *(acc@ucsc.cmb.ac.lk)*.



SECTION 6

DIPLOMA, HIGHER DIPLOMA AND DEGREE AWARDING CRITERIA

6.1 CRITERIA FOR A PASS

A candidate shall be deemed to have passed the Degree of Bachelor of Information Technology Examinations if he/she has

(a) completed a minimum of 90 Credits with at least 30 Credits from each of Level I, Level II and Level III;

(b) has obtained a Cumulative Grade Point Average of not less than 2.00 in all Levels;

(c) has obtained a Grade Point of not less than 2.00 and/or a Pass Grade for Courses aggregating to at least 20 Credits each in Level I, Level II and Level III;

(d) has secured a Grade Point of not less than 2.00 for the Individual Project in Level III;

(e) has not obtained a Grade Point of less than 1.00 for any of the Courses; and,

(f) has obtained a Pass Grade for each Enhancement Course identified in the Regulations.

If a candidate, who fails to obtain a pass in the Degree of Bachelor of Information Technology Examination as specified in section 6.1 above, may be allowed to re-sit any course examination subject to conditions specified elsewhere in By-Laws.

If the candidate does not pass at the Individual Project, he/she shall be required to repeat the project report and/or re-appear for the defense as determined by the Board of Examiners of the UCSC.

A candidate who fails to satisfactorily complete any continuous assessment component in respect of each level may be required to repeat such component.

A candidate may withdraw any course for which he/she obtained a grade prior to C, before releasing his/her formal degree results by written request to the Coordinator EDC. Such course would not appear in his/ her transcript.

Each course examination and the project shall be graded according to a scheme and the details of that grading system will be available at the BIT web site.

6.2 AWARD OF CLASSES

In the case of a candidate who passes repeat subject of any course examination, the percentage score to be taken into consideration in determining the award of class shall be limited to C grade for a course examination unless the Senate decides otherwise.

6.2.1 *FIRST CLASS*

A candidate is eligible to be placed in the First Class if he/she has passed the Degree of Bachelor of Information Technology as set out in section 6.1 and has:

(i) obtained a minimum overall Class GPA of 3.70; **AND**
(ii) a minimum of a "A" grade for the Software Development Project.

6.2.2 *SECOND CLASS (UPPER DIVISION)*

A candidate is eligible to be placed in the Second Class (Upper Division) if he/she has passed the Degree of Bachelor of Information Technology as set out in section 6.1 and has:

(i) obtained a minimum overall Class GPA of 3.30; **AND**
(ii) a minimum of a "B" grade for the Software Development Project.

6.2.3 *SECOND CLASS (LOWER DIVISION)*

A candidate is eligible to be placed in the Second Class (Lower Division) if he/she has passed the Degree of Bachelor of Information Technology as set out in section 6.1 and has:

(i) obtaining a minimum overall Class GPA of 3.00; **AND**
(ii) a minimum of a "B" grade for the Software Development Project.



SECTION 7

MEDALS AND AWARDS

7.1 OVERVIEW

The candidates have to apply to obtain examination transcripts and certificates. All certificates are awarded once a year during the respective awards ceremony. The candidates may apply for transcripts during anytime of the year using the online form and apply through post by paying transcript and postal fees.

7.2 TRANSCRIPTS

The University shall publish the names of candidates who are eligible to be awarded the Degree of Bachelor of Information Technology. Each candidate, whether he has passed or not, shall be provided with a transcript giving details of the grades, GPV and GPA that the had obtained and the final result including classes, if any, provided that, he makes an application for such transcript in the prescribed manner. Applications must be made using the online system and transcript will be either posted using your self- addressed envelope or can be collected from the EDC. Minimum period required to issue a transcript is one week.

7.3 DEGREE

Degree certificates will be issued to graduates after the approval of the Senate of the University of Colombo, few months after the convocation ceremony.

7.4 DIPLOMAS AND HIGHER DIPLOMAS

A candidate who has obtained a pass or a minimum C grade for each course and passed all the continuous assessments as specified in section 4 in Level I shall be awarded a Diploma in Information Technology.

A candidate who has obtained a pass or a minimum C grade for each course and passed all the continuous assessments as specified in section 4 in Level II and has obtained the Diploma in Information Technology shall be awarded a Higher Diploma in Information Technology.

7.5 MEDALS & AWARDS

7.5.1 MEDALS

Prof. V.K. Samaranayake Memorial Medal for the best performance at the Bachelor of Information Technology (External) Degree

1. The selection would be made by the examinations board that determines the award of the degree.
2. The award will be made to the student who is graduated at the first attempt with the highest overall class GPA among those who obtain a first or second class.
3. If there is no suitable candidate for the award, it will not be awarded in the respective convocation.
4. The award will consist of a gold medal and cash prize
5. The award is named "Prof. V. K. Samaranayake Memorial Gold Medal for the best performance at the BIT (External) degree".

Prof. G. N. Wikramanayake Memorial Medal for the best performance in Software Development Project

1. This will be awarded at the BIT convocation to the student who graduated at the first attempt with the highest mark for the Software Development Project among those who obtain a first or second classes.
2. The selection would be made by the examinations board that determines the award of the degree.

Mr. M.J.P.U. Samanthilake Memorial Medal for the best e-Learner

The Mr. M.J.P.U. Samanthilake Memorial Medal will be awarded to the candidate who,

1 obtains a First or Second Class

AND

2. who has obtained the Diploma and Higher Diploma at the first attempt

AND

3. Who has obtained the highest aggregate marks for the Level III online Courses

The selection would be made by the examinations board that determines the award of the degree and it will be awarded at the BIT convocation.

7.5.2 AWARDS

Best e-learner award for Semester 1

1. This award will be made to the candidate(s) who obtain the Diploma at the first attempt and their performance at the VLE assignments and the active participation in the VLE forum discussions in the first semester.
2. The award will consist of a certificate and a cash prize.
3. The selection will be made by the examinations board that determines the Diploma awardees.
4. This award will be presented at the Diploma Award Ceremony.

Best e-learner award for Semester 2

1. This award will be made to the candidate(s) who obtain the Diploma at the first attempt and their performance at the VLE assignments and the active participation in the VLE forum discussions in the second semester.

2. The award will consist of a certificate and a cash prize.
3. The selection will be made by the examinations board that determines the Diploma awardees.
4. This award will be presented at the Diploma Award Ceremony.

Best e-learner award for Semester 3

1. This award will be made to the candidate(s) who obtain the Higher Diploma at the first attempt and their performance at the VLE assignments and the active participation in the VLE forum discussions in the third semester.
2. The award will consist of a certificate and a cash prize.
3. The selection will be made by the examinations board that determines the Higher Diploma awardees.
4. This award will be presented at the Higher Diploma Award Ceremony.

Best e-learner award for Semester 4

1. This award will be made to the candidate(s) who obtain the Higher Diploma at the first attempt and their performance at the VLE assignments and the active participation in the VLE forum discussions in the fourth semester.
2. The award will consist of a certificate and a cash prize.
3. The selection will be made by the examinations board that determines the Higher Diploma awardees.
4. This award will be presented at the Higher Diploma Award Ceremony.



SECTION 8

FEES & PAYMENTS

8.1 PROGRAMME FEES

Programme fees for Sri Lankan Citizens (in Sri Lankan Rs.) are given in Table 8a.

	Level I	Level II	Level III	TOTAL
Application Processing Fee	1,000	--	--	1,000
Annual Registration / Renewal Fee	3,300	3,850	4,400	11,550
Course Examination Fee (Each Course)	1,400	1,750	2,200	--
Examination (Minimum)	14,000	15,750	17,600	47,350
Project Examination Fee	--	--	9,000	9,000
TOTAL (Minimum)	18,300	19,600	31,000	68,900

Table 8a: *Programme Fees for Sri Lankan Citizens*

Fees in respect of referred or repeat courses/project examination(s) are same as above.

8.2 MISCELLANEOUS FEES

Miscellaneous fees for Sri Lankan Citizens (in Sri Lankan Rs.) are given in Table 8b.

Fee for letter issuing to certify the current registration status	250
Fee to issue a duplicate BIT Identity Card	1,500
Fee for the Academic Transcript with Grades	500
Fee for the Academic Transcript with Grades & Marks (Sent only to Foreign Institutions named by the student)	750
Certificate fee for the Diploma in Information Technology	1,500
Certificate fee for the Higher Diploma in Information Technology	1,750
Certificate fee for the Bachelor of Information Technology	3,000
Resubmission of Final Report (Major Corrections)	3,000
Re-project Evaluation (Medicals for Viva)	6,000
Re-project Evaluation (Medicals for Dissertation)	3,000
Fee for the participation of the Awards Ceremony	3,000
Fee for the participation of the Convocation	3,000
Surcharge Fee (late submissions/payments)	Double the relevant fee

Table 8b: *Miscellaneous fees for Sri Lankan Citizens*

NB

1. All payments can be made to any branch of the People's Bank on prescribed vouchers that can be downloaded from the BIT website (Please use all 4 copies of the voucher) or online payment.
2. Cash/Money Orders/Postal Orders will not be accepted.
3. All of the above fees are non-refundable and are subject to revision.

8.3 FEES & PAYMENT FOR FOREIGN NATIONALS

Application Processing Fee for foreign nationals is US$ 25.

Applications of the foreign students should be sent with the recommendation of the relevant foreign missions in Sri Lanka. All foreign students' applications will be especially scrutinized.

The course fee for the foreign students from SAARC countries will be Sri Lankan Rs. 70,000/= per academic year and for the students from other countries will be Sri Lankan Rs. 140,000/= per academic year. The foreign students who repeat the courses should pay the charges as determined at the Board of Study (External and Extension Programmes - EEP) of UCSC.



SECTION 9

TRAINING INSTITUTES

Many training institutes have offered face to face classes and learning support for the BIT candidates. Over 50 institutes have participated in this process with around 30 institutions in some academic years. UCSC does not accredit any of these institutions but have recognised their contributions for the success of the programme. Each year UCSC publishes the summary of examination results of each institute for each course so that the candidates can identify the available institutions and plan their learning mode. More than half of the candidates study on their own with the help of the VLE and online/ recommended material.

This is prepared using information provided by the candidates.

*Latest list will be available on the BIT web site :
http://www.bit.lk/index.php/learning/training-institutes/

The Table 9a demonstrates the institutes that conduct BIT training programms for BIT candidates in the respective districts.Among them, 28 institutes were involved in at least 3 semesters (marked * in Table 9a).

DISTRICT	INSTITUTE NAME
BADULLA	(1) BETA SOFT, WELIMADA
	(2) IDM COMPUTER STUDIES (PVT) LTD, BADULLA
BATTICALOA	(1) * ESOFT COMPUTER STUDIES (PVT) LTD, BATTICALOA
COLOMBO	(1) AURORA COMPUTER STUDIES SUMMERSET COLLEGE, HIGH LEVEL ROAD, MAHARAGAMA*
	(2) E-ACADEMY115_ 2/1 W. A. SILVA MAWATHA_ COLOMBO 06.
	(3) EARTH INTERNATIONAL (PVT) LTD, COLOMBO 08*
	(4) EASALJ LANKA, BORELLA
	(5) E-ACADEMY, COLOMBO 06
	(6) ESOFT COMPUTER STUDIES (PVT) LTD, COLOMBO 06*
	(7) ESOFT COMPUTER STUDIES (PVT) LTD NUGEGODA*
	(8) ESOFT METRO CAMPUS,NO.3, DE FONSEKA PLACE,COLOMBO 4*
	(9) FOUNDATION OF IT PROFESSIONALS, PANNIPITIYA
	(10) IDM COMPUTER STUDIES (PVT) LTD, COLOMBO 04
	(11) MATRIX INSTITUTE OF INFORMATION TECHNOLOGY (PVT) LTD., 279/3, GALLE ROAD, COLOMBO 04.
	(12) PREMIER COLLEGE OF TECHNOLOGY, NUGEGODA
	(13) SHARP VISION IT CENTER, RAJAGIRIYA
	(14) WIDE AWAKE SOLUTIONS (PVT) LTD., PEPILIYANA, COLOMBO.
	(15) OPENARC SCHOOL OF BUSINESS & TECHNOLOGY, NO: 120, HIGH LEVEL ROAD, KIRULAPONE, COLOMBO 6.*
GALLE	(1) EPIC CAMPUS, NO.43, SRI DEWAMITHTHA MAWATHA, GALLE.
	(2) ESOFT COMPUTER STUDIES (PVT) LTD, NO.72, MATARA ROAD, GALLE.
	EARTH INTERNATIONAL (PVT) LTD, GALLE*
GAMPAHA	(1) EARTH INTERNATIONAL (PVT) LTD, GAMPAHA*
	(2) ESOFT COMPUTER STUDIES (PVT) LTD, NEGAMBO*

	(3)	ESOFT METRO CAMPUS, NO.156/A, COLOMBO ROAD, GAMPAHA*
JAFFNA	(1)	COLLEGE OF ICT,50/2,K.K.S ROAD, KOKUVIL EAST, JAFFNA*
	(2)	ESOFT COMPUTER STUDIES (PVT) LTD JAFFNA*
	(3)	MIS BIT CAMPUS, JAFFNA
	(4)	MOBILE@NET COMPUTER SERVICES (MCS), 324, PALALY ROAD, JAFFNA*
KANDY	(1)	E-ACADEMY, KANDY
	(2)	ESOFT COMPUTER STUDIES (PVT) LTD, 02, MULGAMPOLA ROAD,KANDY*
	(3)	ESOFT COMPUTER STUDIES (PVT) LTD,23,SUDUHUMPOLA ROAD,KANDY*
	(4)	ESOFT METRO CAMPUS DEGREE DIVISION NO.447, PERADENIYA ROAD, KANDY*
	(5)	NICD, KANDY
KEGALLE	(1)	INSTITUTE OF COMPUTER STUDIES, KEGALLE*
KURUNEGALA	(1)	CYMAG CAMPUSNO.12_WATHMINI ROAD, KURUNAGALA.
		ESOFT COMPUTER STUDIES (PVT) LTD, NO. 44, NEGOMBO ROAD,KURUNEGALA*
		JVINO 29 _ ST.ANNE'S STREET_ KURUNEGALA
MATARA	(1)	D BASE SCHOOL OF COMPUTING,15B, AKURESSA ROAD, NUPE, MATARA
	(2)	ESOFT COMPUTER STUDIES (PVT) LTD, MATARA*
PUTTALAM	(1)	HALLAM CITY COLLEGE, PUTTALAM*
RATNAPURA	(1)	IT SOFT COMPUTER STUDIES, BALANGODA

Table 9a: *Institutes involved in the BIT Programme in 2016*

SECTION 10

CONTACT

10.1 EXTERNAL DEGREE CENTRE

External Degrees Centre (EDC) is located at University of Colombo School of Computing UCSC Building Complex, 35, Reid Avenue, Colombo 7
Refer Figure 2 for the location of the BIT office.



Figure 10a: *External Degree Centre (EDC) of the UCSC*

POSTAL ADDRESS : Coordinator,
External Degree Centre of UCSC,
University of Colombo School of Computing
UCSC Building Complex, 35, Reid Avenue, Colombo 00700

TEL : +94 -11- 2581245/ 7
FAX : +94 -11-2587239

BIT WEB SITE : **http://www.bit.cmb.ac.lk/**
UCSC WEB SITE : **http://www.ucsc.cmb.ac.lk**
VLE WEB ADDRESS : **vle.bit.lk/**

10.2 STAFF

Following staff members are directly connected with the BIT programme. However, you may directly communicate only with those listed with email or telephone and it should be for appropriate purpose.

Director, University of Colombo School of Computing

Prof. K.P. Hewagamage
email : director@ucsc.cmb.ac.lk



Head, External DegreesPogramme

Dr. D.A.S. Atukorale
email : eep@ucsc.cmb.ac.lk



Academic Coordinator of BIT

Dr. D.D.Karunarathne
email:acc@ucsc.cmb.ac.lk



Coordinator, External Degrees Centre

Mr. L.P. Jayasinghe
email : edc@ucsc.cmb.ac.lk
Tel : (+94) 011-4720511



Project Coordinator of BIT

Mr. W. V. Welgama
email: bitpro@ucsc.cmb.ac.lk



Coordinator, e-Learning Centre/ FIT

Dr. (Mrs) T. A. Weerasinghe
email : elc@ucsc.cmb.ac.lk



Assistant Registrar, External Degrees Centre

Ms. W.M.N.K. Weerasooriya
email : aredc@ucsc.cmb.ac.lk
Tel : (+94) 011-4720511



10.3 OTHER PERSONNEL

Web Master for www.bit.lk web site

email : webmaster@ucsc.cmb.ac.lk

VLE Administrator (Access to VLE)

email : admin@vle.bit.lk

Tel : (+94) 011-2591080

VLE Facilitator (VLE Content)

Web site : http://vle.bit.lk/

Tel : (+94) 011-2591080

Note: While all necessary information pertaining to students reading for the BIT degree is included in this handbook, the UCSC of the University of Colombo reserves the right to revise such information without prior notice.

APPENDIX A: YEAR PLANNER FOR ACADEMIC YEAR 2019

Main Event	*Sub Event*	*Date or Period*
NEW REGISTRATIONS -2019	✓ Calling New Applications	01st October 2018
	✓ New Applications Closing on	31st January 2019
RE-REGISTRATIONS	✓ Students not done the Exams in 2018 (All years)	31st December 2018
	✓ 2018 – 1st year Students	04th January 2019
	✓ 2018 – 2nd year Students	15th January 2019
	✓ 2018 – 3rd year Students	End of January 2019
ACADEMIC YEAR 2019 (Begins on 01st January 2019)	✓ Semester 1,3,5 (15 weeks)	January – April 2019
	✓ Semester 2,4,6 (15 weeks)	June – September 2019
SEM. 1,3,5 EXAMINATIONS	✓ Call Exam Applications	01st – 31st March 2019
	✓ Semester 1 Exams	04th & 05th May 2019 (6 papers)
	✓ Sem.1 Online Assessments	EN1101 : 06th – 19th May 2019 EN1201 : 07th – 20th May 2019 EN1301 : 08th – 21st May 2019
	✓ Semester 3 Exams	11th & 12th May 2019 (5 papers)
	✓ Semester 5 Exams	25th & 26th May 2019 (5 papers)
	✓ Sem. 5 Online Assessment	EN5101 : 27th May-09th June 2019
SEM. 2,4,6 EXAMINATIONS	✓ Call Exam Applications	01st – 31st July 2019
	✓ Semester 2 Exams	21st & 22nd Sep 2019 (4 papers)
	✓ Semester 4 Exams	28th & 29th Sep 2019 (4 papers)
	✓ Semester 6 Exams	05th & 06th Oct 2019 (5 papers)
	✓ Sem. 6 Online Assessment	EN6502 : 07th – 20th Oct 2019
SOFTWARE DEVELOPMENT PROJECT	✓ Project Registrations for 2019	January - February 2019
	✓ Supervisor, Client Agreement Form Submissions ✓ Project Proposal Submission	February – March 2019
	✓ Submission of Software Development Project	October 2019
	✓ Project Evaluations	November – December 2019
	✓ Hardbound Submissions	December - January 2020
AWARD CEREMONY & CONVOCATION	✓ Award Ceremony – 2019	June 2020
	✓ Convocation for 2019	August 2020

APPENDIX B: APPRECIATION OF PROF. V. K. SAMARANAYAKE

An appreciation of the founder Director of the UCSC Vidya Jyothi Professor V. K. SAMARANAYAKE (1939 – 2007)



Vanniarachchige Kithsiri Samaranayake was born on the 22nd of May 1939 and had his early education in Hewavitharana Vidyalaya, Rajagiriya where his father was the principal and his mother was a teacher. He entered Ananda College in 1948 and then Royal College through a competitive examination in 1950.

Prof. V.K. Samaranayake entered the University of Ceylon to read for a degree in Science in 1956 having completed his secondary education at Ananda and Royal Colleges. He was selected to do a Special degree in Mathematics and obtained a First Class Honours degree in 1961.

Prof. Samaranayake entered the Imperial College, London in 1963 on a state scholarship for his postgraduate studies and then moved on to University College, London to complete his PhD in record time before returning home in 1966. At the age of just 35, in recognition of his great scholarship, the University of Colombo appointed him to its highest Academic position of Professor of Mathematics in 1974. He was subsequently appointed Senior Professor of Mathematics in 1984, invited to be the first Senior Professor of the newly created Chair in Computer Science in 1996 and appointed Emeritus Professor of the University of Colombo after his retirement in 2004. In recognition of which the University honoured him with the title Professor Emeritus of Computer Science, and conferred on him the Degree of Doctor of Science, Honoris Causa at its subsequent Convocation.

As it is not possible to confine the appreciation of his enormous service to the nation and his illustrious career as an academic and an administrator to a few pages, some of the significant milestones of his illustrious career are outlined below.

- 1987- He was appointed as Chairman of the Computer and Information Technology Council of Sri Lanka (CINTEC), which he served for 12 years. During this period he was also tasked with chairing the Presidential Task Force on Integrated R & D in Science & Technology 1997-2000 and the National Y2K Task Force in Sri Lanka 1998-2000.

- 1992 - He initiated the participation of Sri Lankan school children in Computer Programming by committing CINTEC funds for sending teams of 4 to the International Olympiad in Informatics (IOI). Sri Lanka has been able to secure 3 Gold, 5 Silver and 13 Bronze medals at successive IOI's with a record of never returning without a medal since 1994

- In 1995 he was instrumental in setting up intensive discussions with Sri Lanka Telecom, to commence Internet services in Sri Lanka. These discussions eventually brought LEARN and Internet connectivity to Sri Lanka in 1996.

- He was instrumental in forming associations for Computer TrainingOrganizations (ACTOS), for the Software Industry (SLASI), and the Computer Vendors (SLCVA). He also created the umbrella organization for these associations in the form of the Federation of IT Industry Associations (FITIA) which recently hosted the largest ICT event in Sri Lanka – the ASOCIO ICT Summit. He has also been involved with the well known ICT Trade Exhibition organization, INFOTEL whose Chairmanship he has held from 1997. INFOTEL has in turn been the major funding organization for many industry and human resource development efforts in the field of ICT.

- In 1984 he had his first major breakthrough with the full backing of the then Chancellor, Dr. P. R. Anthonis and Vice Chancellor Prof. Stanley Wijesundera in the form of a substantial JICA grant from the Government of Japan. Almost simultaneously, the UNDP provided some much needed research funding to build up Academic Faculty in Computer Science at the University of Colombo. Starting with the Statistical Unit and the Statistical Computing and Data Processing Centre within the Mathematics Department, Prof. Samaranayake first convinced the

University to set up a Department of Statistics and Computer Science in 1985, the first of its kind in Sri Lanka, and then went onto create the first School in the university system in the form of the University of Colombo School of Computing (UCSC) in 2002.

- Commencing in the year 2000, Prof. Samaranayake initiated another major milestone in ICT HRD in Sri Lanka with the launch of the innovative Bachelor of Information Technology (BIT) External Degree programme which provides an ultimately scalable mechanism for affordable ICT education in a way that incorporates the private sector – a feat no other degree programme has been designed to do.

- Prof. Samaranayake's involvement in the scientific community has been no less impressive with the Sri Lanka Association for the Advancement of Science (SLAAS) electing him to the office of General President in 1994 and the National Academy of Sciences of Sri Lanka electing him as a Fellow of the Academy, its Vice President and finally its President for 1998-99.
- Commencing with the meagre funding resources extended by donors in the 1970's in an era when the developed countries themselves were just getting into the area of serious ICT human resource development, Prof. Samaranayake commenced his quest of directing all local and foreign funding to develop ICT Human Resource development at the University of Colombo.´´

- Prof. Samaranayake has been bestowed with several national awards in the form of the Lions' Club Gold Medal for the Most Outstanding Citizen of Sri Lanka in 1986, the Vishva Prasadini Award in 1996 on the occasion of the 80th birthday of the then Prime Minister Sirimavo Bandaranaike and the VidyaJyothi Presidential Award in 1998.

- Prof. Samaranayake's characteristic skill at excelling in multiple tasks is also demonstrated by his continuing involvement in research, being named a Fellow of the Kennedy School of Government at Harvard University, USA in 2001, Research Fellow at the National Centre for Digital Government at Harvard University, USA in 2003 and the impending appointment as Visiting Fellow in the Digital Vision Programme at Stanford University, USA in 2005. A particularly high point of this role was when he simultaneously chaired two International Conferences while playing a key role in the whole of the Government declared Information Technology Week in December 2004. He also continued as Chairman of the International Information Technology Conference till his untimely demise.

APPENDIX C: MILESTONES in the pioneering efforts in Computing of the University of Colombo

1967	First course in computer programming taught in a Sri Lankan University
1968	Establishment of the Statistical Unit
1974	Establishment of the Statistical Consultancy and Data Processing Service
1980	Establishment of Computer Centre
1981	Procurement of the mini computer Data General Eclipse model S/140 with time sharing OS and 16 terminals for Fortran programming
1982	Processing and the release of the results to Sri Lanka Rupavahini corporation of the 1982 presidential election in Sri Lanka with using the BBC computers, considered the first ever computerization of a national event
1982	Proliferation of BBC micro computers over Econet, the first LAN for file sharing, printing and Basic programming in a 30 machine PC lab
1982	Introduction of first generation personal computers – KayPro running CP/M
1984	Tandy Radio Shack TRS model 80 running XENIX for Unix and C programming
1985	Establishment of the Department of Statistics and Computer Science (DSCS)
1985	IBM PC/XT standard PC based on 8086/88 running MSDOS introduced for Labs
1986	Introduction of the first ever Postgraduate Degree in Computing in Sri Lanka
1987	Establishment of the Institute of Computer Technology (ICT) (Supported by JICA)
1988	NEC 430 mainframe donated by Japan with 60 terminals for interactive computing
1989	UNISYS minicomputer for student programming in Fortran, Pascal and Prolog installed through UNDP funds
1989	Next generation PC Labs with 80286/386 processors running Novell Netware 3.11/Widows 3.1 OS
1990	The first Bachelors and Masters degrees in Computer Science commenced by a Sri Lankan university
1992	Installation of Sun Microsystems Sun Workstation Lab with 10 machines with SunOS 4.1.2 and 10Mbps Ethernet for scientific computing
1992	Launch of the Third Country training programme with JICA collaboration
1994	UUCP dial up email service provided for University of Colombo
1997	Internet access via Lanka Education and Academic Research Network via a 64kbps leased line by Sri Lanka Telecom
1997	The British Computer Society accreditation was received for the Computer Science degree

1988	The research thematic International Information Technology Conference was organized by the UCSC and is now succeeded by the International Conference on Advances in ICT for Emerging Regions is technically sponsored by IEEE
1998	Commencement of Graduate Training Programme
1999	ICT Presented with JICA President's award
2000	Establishment of a Campus-wide fibre optic network for UoC through a Swedish Development Grant
2000	Specialised servers like IBM RS/6000 (AIX OS) and Sun UltraSPARC (Solaris 7 OS) for graduates provided
2000	Introduction of the Bachelor of Information Technology (BIT) External Degree
2000	Joint PhD program in computing for academics of Sri Lankan universities with UCSC coordination at Swedish Universities
2000	Sinhala and Tamil languages Unicode specified
2001	Commissioning of Campus Wide Fiber Network (Supported by Sida)
2001	Establishment of the Department of Computer Science (DCS) by splitting DSCS
2002	Establishment of the UCSC by merging the ICT & DCS
2002	Establishment of the Advanced Media Technology Centre (ADMTC) (Supported by JICA)
2002	Commencement of Advanced M.Sc. (Research based) and Master of Information Technology
2002	Launch of the National e-learning centre project funded by SIDA
2002	Implementation of Virtual Learning Environment for BIT (External Degree) using Software System called The Education
2003	PAN Localisation research project for local language computerization with grants form IDRC, Canada
2004	Introduction of the ICT degree programme for students following any of the streams at GCE A/L
2004	Implementation of Virtual Learning Environment for Internal Undergraduates using Moodle
2005	Implementation of Virtual Learning Environment for all UCSC Students
2006	Launch of the UCSC International Journal on ICT for Emerging Regions
2009	Commencement of Linneas-Palmer staff and student exchange program with Umeå University, Sweden
2011	Establishment of the Center for Digital Forensic
2012	Commencement of Masters in Bioinformatics jointly with IBMBB
2012	Software Engineering Specialization was added to the Computer Science Degree Programme
2012	Changing the name of BICT Degree Programme in to Information System after the Curriculum Revision of BICT.

2012	Launch of the Master of Information Security degree
2013	Started Student Exchange Programme with Umea University, Sweden
2013	Computerization of the Registrar General's department, Land Registry and Police Fingerprint matching system
2014	Commencement of construction of the new auditorium building
2015	Commencement of BSc. (Hons) in Software Engineering Degree Programme
2016	Commencement of construction of Canteen, Library, and Administration building of the UCSC
2017	Opening of the new Vidya Jyothi Prof V. K. Samaranayake auditorium and the building
2018	Introduction of Master of Business Analytics Programme



Coordinator,
External Degree Centre,
University of Colombo School of Computing,
UCSC Building Complex,
35, Reid Avenue, Colombo 00700,
Sri Lanka

+94-11-4720511
+94-11-2501321

http://www.bit.lk/
http://bit.ucsc.cmb.ac.lk/

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