



# **University of Moratuwa**

**Faculty of Information Technology**

## **Bachelor of Information Technology (BIT) External Degree Programme**

**Administered by the  
Centre for Open & Distance Learning (CODL)**

# **APPLICANT HANDBOOK**

**For the 11<sup>th</sup> Intake (February 2016)**

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## 1. Introduction

In line with the objectives of the corporate plan of the University of Moratuwa and meeting with the ever increasing demand for IT professionals, the Faculty of Information Technology (FIT) has launched - **The external Degree of Bachelor of Information Technology (BIT)**. The programme is offered to allow higher educational opportunities for a wider audience of citizens in the country regardless of geographical locations.

The BIT Programme has been delivered by the **Centre for Open & Distance Learning (CODL)** so far in two modes/options. One option was through a Partner Organization (PO) for collaborative provision. The other option was for independent self-learning in open and distance learning (ODL) mode.

From the 6<sup>th</sup> intake onwards ( from 2011 January) it was decide to deliver the BIT Programme **through Partner Organizations and from 2012 to offer direct on line mode to officers of government service**. Details of Partner Organizations are in Section 10 of this document.

## 2. Programme Structure

The BIT External Degree Programme allows multiple entry points and multiple exit points as shown in Figure 1. The programme work load is divided into three different levels, Level 1, Level 2 and Level 3 which are also called the Diploma Level, the Higher Diploma Level and the Degree Level, respectively. Each level consists of 2 semesters that end with examinations.

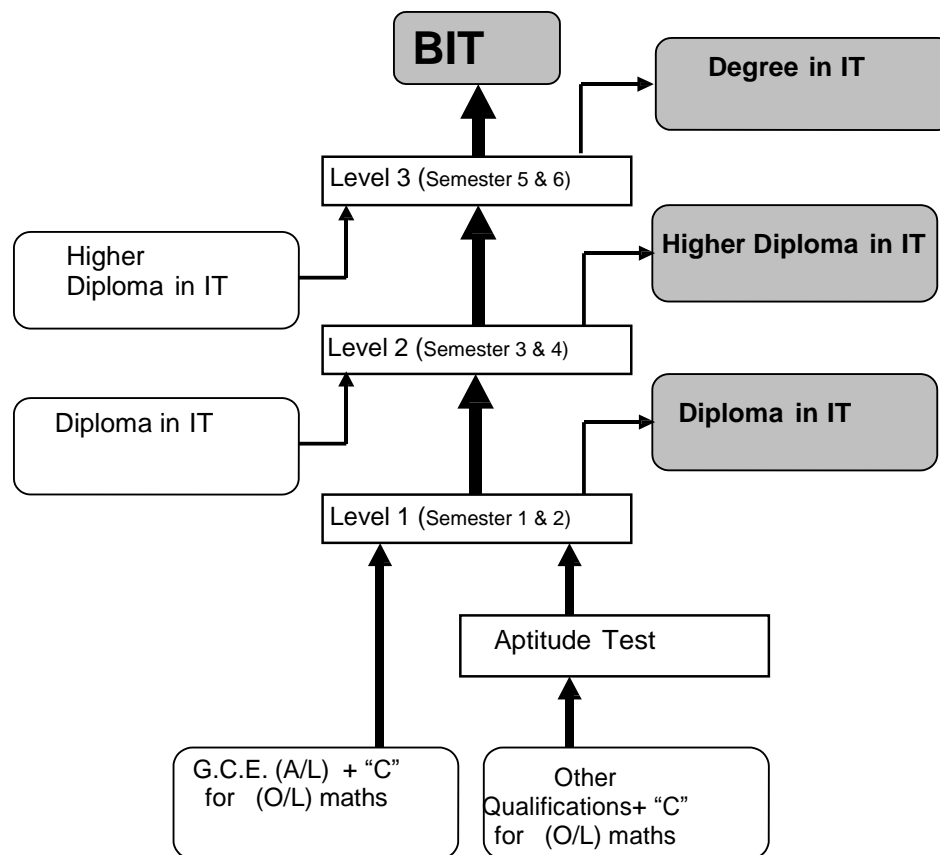


Figure 1: Progression Path of BIT

### 3. Entry Requirements

A student may enter the degree programme at different levels depending on the qualifications they have obtained as shown in Table 1.

<b>Level 1</b>	<p>An applicant may be considered for Admission to the BIT degree programme, if he/she has:</p> <p>(a) Three passes in the G.C.E. (A/L) examination in one sitting.</p> <p style="text-align: center;"><b>OR</b></p> <p>Any other equivalent / academic / professional qualification acceptable to the Faculty Board and approved by the Senate</p> <p style="text-align: center;"><b>AND</b></p> <p>(b) A credit pass for Mathematics in the G.C.E (O/L) examination</p> <p>An applicant who does not have the three passes in the G.C.E (A/L) and seek to get admitted through any other qualification is required to pass the Aptitude Test conducted by the University.</p>
<b>Level 2</b>	To be considered for admission to the Degree programme at the Level 2 an applicant must successfully complete the Diploma Programme (i.e., the Level 1).
<b>Level 3</b>	To be considered for admission to the Degree programme at the Level 3 an applicant must successfully complete the Higher Diploma Programme (i.e., the Level 2).

**Table 1: Entry requirements**

The qualifications accepted by the university in place of (an alternative) the 3 passes at G. C. E. (A/L) exam are:-

*At least 6 passes in not more than two sittings and a credit pass in Mathematics at the GCE (O/L) examination and a full-time Diploma / Certificate or higher qualification of at least 1 year duration from a recognized institution.*

The Senate has so far approved the following institutes / programs/ qualifications:

- Public sector universities
- National Institute of Business Management (NIBM)
- Training institute or programs accredited by the Tertiary and Vocational Education Commission (TVEC)
- Government technical colleges
- Recognized professional organizations (e.g., BCS, IESL, CIMA, CIM, PMI)
- Three E passes at the Edexcel Advanced GCE Examination
- Teacher's Diploma in Information Technology Program (1year ), Sri Lanka Institute of Information Technology (SLIIT)
- Professional in service English Teacher Training Program (1 year), National Institute of Education (NIE)
- *Trained Teachers' Certificate* (2 year, full-time) , Government Teacher Training Colleges
- *International Diploma in Computer Studies* of NCC Education, UK

#### 4. Exemptions

A candidate who has completed all the course modules in the HNDIT curriculum including the project can be exempted from the Level 1 and Level 2 course modules of the BIT External Degree Programme listed in Table 1 and Table 2, respectively

**Table 2: List of Level 1 BIT course Modules Exempted**

Module Code	Course Module	Credits
ITE 1002	Communication Skill Development (Non GPA)	2
ITE 1101	Fundamentals of Programming	4
ITE 1102	Web Technologies	4
ITE 1103	Visual Application Programming	4
ITE 1201	Computer Organization	4
ITE 1301	Introduction to Networking	4
ITE 1501	Principles of Management	2
ITE 1701	Mathematics for IT	4
ITE 1801	Data Management Systems	2
ITE 1901	Essentials of Information and Communication Technologies	4

\*Note: ITE 1001 – Accountancy is not exempted

**Table 3: List of Level 2 BIT Course Modules Exempted**

Module Code	Course Module	Credits
ITE 2106	Software Engineering	3
ITE 2203	Computer Architecture	3
ITE 2301	Basics of Information and Network Security	2
ITE 2302	Computer Networks	3
ITE 2303	Network Programming	2
ITE 2601	Multimedia Design	3

\*Note: Candidates are not exempted from the following compulsory course modules:

ITE 2003 , ITE 2107, ITE 2202, ITE 2401, ITE 2402, ITE 2702, ITE 2802

They should also obtain at least 3 credits from the non- exempted elective modules to completed the Diploma

- (a) Candidates coming through the lateral entry systems getting exemption for one or more BIT course module in Level 1 and Level 2 will be awarded the final BIT external Degree only, upon completion of the requirements, but not any other intermediate qualification such as Diploma in IT or Higher Diploma in IT.
- (b) Awarding of class for the BIT External Degree will be determined according to the performance criteria, which specifies that only the performance (GPA) in the Level 3 is considered for awarding classes.

## 5. Exit Criteria

There are multiple exit points in the BIT degree programme. A student who successfully completes all academic and other requirements of each Level will be awarded qualifications as indicated in Table 4.

Level 1	Diploma in Information Technology
Level 2	Higher Diploma in Information Technology
Level 3	Degree of Bachelor of Information Technology

**Table 4: Qualifications earned on completion of each Level**

## 6. Programme Duration

Minimum duration of the degree programme is *three years* (i.e., three academic years) and the maximum duration for the completion of the programme is set out as *nine years* such that the credit requirements for each level should be completed within *three years* of the date of registration for that level.

## 7. Programme Requirements

A candidate is considered to have successfully completed each level if he/she has completed the credit requirements at each level within the stipulated time period and obtain a GPA of 2 or above. Academic and evaluation activities will be carried out over 2 semesters each year, with end of semester examinations.

The minimum period of study for each level of certification (Diploma, Higher Diploma, and Degree) is *Two Semesters*. A semester is typically of 14 weeks' duration.

The Course of study shall consist of:

- (a) Classroom and laboratory learning as required
- (b) Independent or guided study as per the course outline
- (c) Activities such as assignments, quizzes
- (d) Discussion forums
- (e) Projects

## 8. Examinations

The Examinations for course modules conducted during a semester shall be held at the end of the Semester. Course Modules and project work shall be assessed on the basis of set-paper examinations, presentations and reports according to the curricula. The medium of examinations is English. The examination will be conducted in a selected center in Colombo.

## 9. Curriculum & Credit Structure

The curriculum for the BIT has been developed through a series of meetings and workshops conducted by a group of IT experts from the industry and the academia. The following tables describe the Course Modules for the Bachelor of Information Technology External Degree programme. It also provides the information regarding the credit rating for each module and the credits that a student is required to earn to complete the academic requirements for Level 1, Level 2 and Level 3 of the degree programme.

The following nomenclature is used through this document:

**C – Compulsory** Programme Modules

**E – Elective** Programme Modules

One credit is considered to be equivalent to one hour classroom teaching or about four self-study hours per week in a semester of 14 weeks.

Level 1			Credits
ITE 1001	Accountancy	C	2
ITE 1002	Communication Skill Development (Non GPA)	C	2
ITE 1101	Fundamentals of Programming	C	4
ITE 1102	Web Technologies	C	4
ITE 1103	Visual Application Programming	C	4
ITE 1201	Computer Organization	C	4
ITE 1301	Introduction to Networking	C	4
ITE 1501	Principles of Management	C	2
ITE 1701	Mathematics for IT	C	4
ITE 1801	Data Management Systems	C	2
ITE 1901	Essentials of Information and communication Technologies	C	4

**Table 5: List of Course Modules in Level 1**

Credit Requirements	GPA Compulsory	GPA Elective	Non-GPA Compulsory	Non GPA Elective	Total
Total Credits offered	34	0	2	0	36
Total Credits required to complete Leel 1	34	0	2	0	36

**Table 6 : Credit Requirements for Level 1**

Level 2			Credits
ITE 2003	Business Studies (Non GPA)	C	2
ITE 2105	Data Structures and Algorithms	E	3
ITE 2106	Software Engineering	C	3
ITE 2107	Object Oriented Analysis and Design	C	3
ITE 2202	Operating Systems	C	3
ITE 2203	Computer Architecture	C	3
ITE 2301	Basics of Information and Network Security	E	2
ITE 2302	Computer Networks	E	3
ITE 2303	Network Programming	E	2
ITE 2401	Logic Programming	C	3
ITE 2402	Intelligent Systems	C	3
ITE 2502	Human Resource Management	E	2
ITE 2601	Multimedia Design	C	3
ITE 2602	Computer Graphics	E	3
ITE 2702	Computational Mathematics	C	3
ITE 2802	Database Management Systems	C	3
ITE 2803	Management Support Systems	E	2

**Table 7: List of Course Modules in Level 2**

Credit Requirements	GPA Compulsory	GPA Elective	Non-GPA Compulsory	Non GPA Elective	Total
Total Credits offered	27	17	2	0	46
Total Credits required to complete Level 2	27	10	2	0	39

**Table 8: Credit Requirements for Level 2**

Note: At Level 2, a student must earn 39 credits comprising 37 credits of GPA (27 credits from compulsory course modules and 10 credits from elective course modules), and 2 credits of Non GPA. Every elective course module may not be offered in every semester.

Level 3			Credits
ITE 3004	Professional Practice (Non GPA)	C	2
ITE 3005	Social Aspects of IT (Non GPA)	C	2
ITE 3106	Advanced Software Engineering	C	3
ITE 3108	Internet Programming and Web Services	E	3
ITE 3109	Compiler Theory	E	3
ITE 3204	Computer and Network Security	E	3
ITE 3304	Network Design, Applications and Management	E	3
ITE 3305	Information Systems Security	E	3
ITE 3306	Wireless Communication and Networks	E	3
ITE 3403	Agent Based Systems	E	3
ITE 3404	Expert Systems and Natural Language Processing	E	3
ITE 3405	Essentials of Machine Learning	E	3
ITE 3406	Industry Application of Artificial Intelligence	E	2
ITE 3503	IT Enabled Marketing	E	2
ITE 3504	IT Project Management	C	3
ITE 3505	IT Quality Assurance	C	2
ITE 3603	Human Computer Interaction	E	2
ITE 3604	Digital Image Processing	E	3
ITE 3703	Probability and Statistics	E	3
ITE 3802	Advanced Database Management Systems	E	3
ITE 3804	Data Mining & Data Warehousing	E	3
ITE 3805	e-Business	E	2
ITE 3902	Bio Informatics	E	3
ITE 3999	Project	C	16

**Table 9: List of Course Modules in Level 3**

Credit Requirements	GPA Compulsory	GPA Elective	Non-GPA Compulsory	Non GPA Elective	Total
Total Credits offered	24	50	4	0	78
Total Credits required to complete Level 3	24	12	4	0	40

**Table 10: Credit Requirements for Level 3**

Note: At Level 3, a student must earn 40 credits comprising 36 credits of GPA (24 credits from compulsory course modules and 12 credits from elective course modules), and 4 credits of Non GPA. Every elective course module may not be offered in every semester.



The overall credit requirements to complete the Levels and the degree are shown in Table 11.

<b>Credit Requirements</b>	<b>GPA Compulsory</b>	<b>GPA Elective</b>	<b>Non-GPA Compulsory</b>	<b>Non GPA Elective</b>	<b>Total</b>
Credit Requirements (Level 1)	34	0	2	0	<b>36</b>
Credit Requirements (Level 2)	27	10	2	0	<b>39</b>
Credit Requirements (Level 3)	24	12	4	0	<b>40</b>
<b>Total</b>	85	22	8	0	<b>115</b>

**Table 11: Summary of Credit Requirements**

## 10. Delivery through Partner Organization

At present following organization which has experience in delivering degree level Programmes function as a Partner Organization.

- 1) OpenArc School of Business & Technology

The modalities of this partnership are somewhat similar to modalities used by foreign universities offering their degree programmes in Sri Lanka. The above institute has been selected as a partner by the University of Moratuwa after going through a formal evaluation.

Partner Organization is oriented and provided with guidelines for effective delivery of courses and conduct of practical sessions, tutorials, etc. and will also be monitored on a regular basis by the University. They would provide classroom teaching and other learning facilities and resources to students enabling them to gain the expected learning outcomes and face assessments and examinations conducted by the University of Moratuwa.

Applicants should contact the Partner Organization directly and obtain information about lectures.

## 11. Student Assessment and Evaluation

The student progress evaluation of the BIT programme will consist of the following:

### a) Continuous Assessment

Continuous assessments based on assignments, discussion forums, practical assessments and other forms as decided by the Faculty of Information Technology and the appointed examiners.

### b) Examinations

An examination will be conducted at the end of each semester for each course module offered in the semester.

**c) Final Project**

The students will carry out an individual project during the Level 3 of the programme. Guidelines on the final project will be issued upon the student's registration for Level 3 of the programme.

**d) Repeat Examinations**

Any student failing a course module examination at the first attempt will have opportunities to sit again at subsequent module examinations in later semesters.

**12. Charges and Student Fees**

**University Charges**

The registration and course fee for all 3 years of the BIT external degree payable to the university is as shown in table below

	Registration Fee (payable at the beginning of the Semester 1)	Programme Fee		Total
		Semester 1	Semester 2	
Level 1	Rs. 200	Rs. 34,800	Rs. 30,000	Rs. 65,000
Level 2	Rs. 200	Rs. 24,800	Rs. 20,000	Rs. 45,000
Level 3	Rs. 200	Rs. 19,800	Rs. 10,000	Rs. 30,000
<b>Total Fees</b>				<b>Rs.140,000</b>

## Fee Structure for Lateral Entry Student (HNDIT)

The registration and course fee of the (BIT) external degree is **Rs. 100,400** for all two years as shown in the table below).

	Registration Fee (payable at the beginning of the Semester 1)	Programme Fee		Total
		Semester 1	Semester 2	
Level 2	Rs. 200	Rs. 28,000	Rs. 20,000	Rs. 48,200
Level 3	Rs. 200	Rs. 22,000	Rs. 30,000	Rs. 52,200
<b>Total Fees</b>				<b>Rs. 100,400</b>

**Table 2:** Fee Structure for the Bachelor of Information Technology (BIT) external degree for students paying at the beginning of each semester

The above fee is payable direct to the University of Moratuwa, at any branch of the **Bank of Ceylon** to the credit of **Bank of Ceylon A/C No 70993353 of the University of Moratuwa** by using the paying-in-voucher available at the bank and a receipt obtained. Please ensure that **“Bachelor of Information Technology”** is stated as the Programme name. A copy of the receipt should be sent to the university along with other documents.

In addition you are required to pay the lecture fee as per the fee structure of OpenArc which will be communicated to you by them.

Your registration will be valid only after both payments are made

### Contact :-

**UNIVERSITY OF MORATUWA /CODL - 011 308 2787 /011 308 2788**

### Partner organization

**OPENARC SCHOOL OF BUSINESS & TECHNOLOGY - 011 251 5050 / 072 722 3300**

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