

## Applicant Handbook for HNDIT (SLIATE) Students (New Syllabus)

For the 16th Intake (April 2019)

# Bachelor of Information Technology (BIT) External Degree Programme

**Faculty of Information Technology** 

Administered by the

Centre for Open & Distance Learning (CODL)

University of Moratuwa

#### Contents

| 1. | Introduction   | 2  |
|----|--|----|
| 2. | Programme Structure  | 2  |
| 3. | Lateral Entry to BIT (External) Degree                           | 3  |
|    | 3.1 Exemptions   | 3  |
|    | 3.2 List of Exempted Modules for Different Specialization Tracks | 4  |
|    | 3.3 Required Modules for Different Specialization Tracks         | 5  |
| 4. | Programme Requirements   | 6  |
| 5. | Examinations   | 6  |
| 6. | Curriculum & Credit Structure                                    | 6  |
| 7. | 7. Credit requirements to complete the each level                | 8  |
| 8. | Charges and Student Fees   | 9  |
|    | 8.1 University Charges for Lateral Entry Students (HNDIT)        | 9  |
| a  | Contact Datails  | 10 |

#### 1.Introduction

The Faculty of Information Technology (FIT) of University of Moratuwa offers the **External Degree of Bachelor of Information Technology (BIT)** to produce graduates to meet the ever increasing demand for IT professionals. 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 is delivered by the **Centre for Open & Distance Learning (CODL)** with two modes/options. One option is through a Partner Organization (PO) for collaborative provisions. The other option is for independent self-learning (self-study mode) in open and distance learning (ODL).

#### 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.

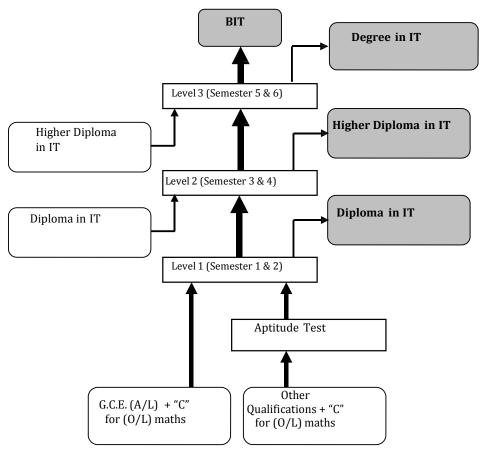


Figure 1: Progression Path of BIT

#### 3. Lateral Entry to BIT (External) Degree

#### 3.1 Exemptions for Common Modules in HNDIT

A candidate who has completed all course modules listed below in the HNDIT curriculum can be exempted below tabled (16) modules of the BIT External Degree Programme under the revised curriculum with effect from January 2019.

|                     | Year 01 (Semester 1 & Semester 2)    |                                      |   |  |  |  |  |
|---------------------|--------------------------------------|--------------------------------------|---|--|--|--|--|
| HNDIT  Module Title |                                      | Exempted Module Codes & Names in BIT |   |  |  |  |  |
| HNDIT1101           | Personal Computer Applications       | )                                    | ITE 1912 Communication Skills Development |  |  |  |  |
| HNDIT1102           | Computer Hardware                    |                                      | ITE 1812 Mathematics for IT               |  |  |  |  |
| HNDIT1103           | Structured Programming               |                                      | ITE 1712 Web Design                       |  |  |  |  |
| HNDIT1104           | Data Representation and Organization |                                      | ITE 1922 ICT Applications                 |  |  |  |  |
| HNDIT1105           | Database Management Systems          |                                      | ITE 1122 Fundamentals of Programming      |  |  |  |  |
| HNDIT1106           | Web Development                      |                                      | ITE 1932 Technical Writing                |  |  |  |  |
| HNDIT1107           | Mathematics for IT                   |                                      | ITE 1412 Information Management           |  |  |  |  |
| HNDIT1108           | English for Technology I             |                                      | ITE 1212 Computer Systems                 |  |  |  |  |
| HNDIT1209           | Object Oriented Programming          |                                      | ITE 1222 System Analysis & Design         |  |  |  |  |
| HNDIT1210           | Graphics and Multimedia              |                                      | ITE 1942 ICT Project                      |  |  |  |  |
| HNDIT1211           | Data Structures and Algorithms       |                                      |   |  |  |  |  |
| HNDIT1212           | Systems Analysis and Design          |                                      |   |  |  |  |  |
| HNDIT1213           | Data Communications and Networks     |                                      |   |  |  |  |  |
| HNDIT1214           | Statistics for IT                    |                                      |   |  |  |  |  |
| HNDIT1215           | English for Technology II            |                                      |   |  |  |  |  |
| HNDIT1216           | Human Values and Professional Ethics |                                      |   |  |  |  |  |

|                         | Year 02 (Semester 03)                   |  |  |  |  |  |  |
|-------------------------|---|--|--|--|--|--|--|
| HNDIT<br>Module<br>Code | Module Title                            | Exempted Module Code & Name  |  |  |  |  |  |
| HNDIT2301               | Operating Systems and Computer Security | ITE 2132 Object Oriented Programming   |  |  |  |  |  |
| HNDIT2302               | IT Project Management                   | ITE 2142 Data Structures and Algorithms ITE 2232 Computer Networks & Operating |  |  |  |  |  |
| HNDIT2303               | Principles of Management and            | Systems  |  |  |  |  |  |
|                         | Applied Economics                       | ITE 2732 Multimedia Development  |  |  |  |  |  |
| HNDIT2304               | Project(Group)                          | ITE 2612 IT Project Management   |  |  |  |  |  |
| HNDIT2305               | English for Technology III              | ITE 2952 Programming Group Project   |  |  |  |  |  |

#### 3.2 List of Exempted Modules for Different Specialization Tracks

Total number of exempted modules are varying from the track you were chosen at the HNDIT.

| HNDIT   | Module Title                         | Exempted Module Code and Name           |  |  |  |  |  |
|---|--------------------------------------|---|--|--|--|--|--|
| Module  |                                      |   |  |  |  |  |  |
| Code  |                                      |   |  |  |  |  |  |
|   | Developer Tr                         | ack                                     |  |  |  |  |  |
| HNDIT2311                                     | Rapid Application Development        | ITE 1112 Visual Application Programming |  |  |  |  |  |
| HNDIT2413 Web Application Development         |                                      | ITE 2722 Web Programming                |  |  |  |  |  |
| HNDIT2417                                     | Mobile Application Development       | ITE 2152 Mobile Application Development |  |  |  |  |  |
| HNDIT2312                                     | Principles of Software Engineering   | ITE 2162 Software Engineering           |  |  |  |  |  |
| HNDIT2313 Object Oriented Analysis and Design |                                      |   |  |  |  |  |  |
|   | Administration Track                 |   |  |  |  |  |  |
| HNDIT2321                                     | Advanced Database Management Systems | ITE 2422 Database Management Systems    |  |  |  |  |  |

| Analyst Track |                            |  |                               |  |  |  |
|---------------|----------------------------|--|-------------------------------|--|--|--|
| HNDIT2433     | Software Quality Assurance |  | ITE 2312 IT Quality Assurance |  |  |  |

#### 3.3 Required Modules for Different Specialization Tracks

The list of **not exempted** modules in level 01 and level 02 are listed below.

| Track                | Level | Module<br>Code | Module Name                    | No of Credits |
|----------------------|-------|----------------|--------------------------------|---------------|
| Developer Track      | 2     | ITE 2422       | Database Management Systems    | 4             |
|                      | 2     | ITE 2312       | IT Quality Assurance           | 2             |
|                      |       |                | Total                          | 06            |
|                      |       |                |                                |               |
| Administration Track | 1     | ITE 1112       | Visual Application Development | 4             |
|                      | 2     | ITE 2722       | Web Programming                | 4             |
|                      | 2     | ITE 2162       | Software Engineering           | 4             |
|                      | 2     | ITE 2152       | Mobile Application Development | 2             |
|                      | 2     | ITE 2312       | IT Quality Assurance           | 2             |
|                      |       |                | Total                          | 16            |
|                      |       |                |                                |               |
| Analyst Track        | 1     | ITE 1112       | Visual Application Development | 4             |
|                      | 2     | ITE 2722       | Web Programming                | 4             |
|                      | 2     | ITE 2422       | Database Management Systems    | 4             |
|                      | 2     | ITE 2162       | Software Engineering           | 4             |
|                      | 2     | ITE 2152       | Mobile Application Development | 2             |
|                      |       |                | Total                          | 18            |

#### Note:

- 1. Payment for Level 3 Rs. 120,000/=
- 2. Payment for the rest of the subjects in L2 and L1 will be decided based on the no of credits per the module as listed below.

```
02 credits - Rs. 2250/=
03 credits - Rs. 2500/=
04 credits - Rs. 2750/=
```

3. Total credits requirement in Level 3 is 36 credits. It consists with 18 compulsories and 18 electives.

#### 4. 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. Academic and evaluation activities will be carried out over two (02) 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 consists of:

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

#### 5. 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.

#### 6. 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 conducted at present. However please note that the present curriculum has been revised to better meet the employment requirements. Curriculum 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.

#### Revised Curriculum - BIT (External) Degree

|                             | Level 01                         |   |         |  |  |  |  |
|-----------------------------|----------------------------------|---|---------|--|--|--|--|
| Semester 01                 |                                  |   | Credits |  |  |  |  |
| ITE 1912                    | Communication Skills Development | С | 2       |  |  |  |  |
| ITE 1112                    | Visual Application Programming   | С | 4       |  |  |  |  |
| ITE 1812                    | Mathematics for IT               | С | 4       |  |  |  |  |
| ITE 1712                    | Web Design                       | С | 4       |  |  |  |  |
| ITE 1922                    | ICT Applications                 | С | 2       |  |  |  |  |
| Total Credits - Semester 01 |                                  |   |         |  |  |  |  |
| Semester 02                 |                                  |   |         |  |  |  |  |
| ITE 1122                    | Fundamentals of Programming      | С | 4       |  |  |  |  |
| ITE 1932                    | Technical Writing                | С | 2       |  |  |  |  |
| ITE 1412                    | Information Management           | С | 2       |  |  |  |  |
| ITE 1212                    | Computer Systems                 | С | 2       |  |  |  |  |
| ITE 1222                    | System Analysis & Design         | С | 2       |  |  |  |  |
| ITE 1942                    | ICT Project                      | С | 2       |  |  |  |  |
| Total Credits               | Total Credits - Semester 02      |   |         |  |  |  |  |
| Total Credit                | s - Level 01 (Compulsory)        |   | 30      |  |  |  |  |

|                             | Level 02                              |   |    |  |  |  |  |
|-----------------------------|---------------------------------------|---|----|--|--|--|--|
| Semester 01                 | Semester 01                           |   |    |  |  |  |  |
| ITE 2132                    | Object Oriented Programming           | С | 4  |  |  |  |  |
| ITE 2142                    | Data Structures and Algorithms        | С | 2  |  |  |  |  |
| ITE 2232                    | Computer Networks & Operating Systems | С | 4  |  |  |  |  |
| ITE 2722                    | Web Programming                       | С | 4  |  |  |  |  |
| ITE 2422                    | Database Management Systems           | С | 4  |  |  |  |  |
| Total Credits               | Total Credits - Semester 01           |   |    |  |  |  |  |
| Semester 02                 |                                       |   |    |  |  |  |  |
| ITE 2732                    | Multimedia Development                | С | 2  |  |  |  |  |
| ITE 2152                    | Mobile Application Development        | С | 2  |  |  |  |  |
| ITE 2162                    | Software Engineering                  | С | 4  |  |  |  |  |
| ITE 2312                    | IT Quality Assurance                  | С | 2  |  |  |  |  |
| ITE 2612                    | IT Project Management                 | С | 2  |  |  |  |  |
| ITE 2952                    | Programming Group Project             | С | 4  |  |  |  |  |
| Total Credits - Semester 02 |                                       |   |    |  |  |  |  |
| <b>Total Credits</b>        | - Level 02 (Compulsory)               |   | 34 |  |  |  |  |

|                             | Level 03   |     |         |  |  |
|-----------------------------|--|-----|---------|--|--|
| Semester 0                  | 1  |     | Credits |  |  |
| ITE 3822                    | Discrete Mathematics                               | С   | 4       |  |  |
| ITE 3322                    | Professional Practice                              | С   | 2       |  |  |
| ITE 3242                    | Information Security                               | С   | 2       |  |  |
| ITE 3962                    | Project **   | С   | 4       |  |  |
| ITE 3512                    | Fundamentals of Artificial Intelligence            | Е   | 3       |  |  |
| ITE 3622                    | Business Processes & Accounting Systems            | Е   | 3       |  |  |
| ITE 3632                    | Principles of Management                           | Е   | 3       |  |  |
| ITE 3172                    | Enterprise Application Development                 | Е   | 3       |  |  |
| ITE 3972                    | Research Methodology                               | Е   | 3       |  |  |
| Total Credits - Semester 01 |  |     |         |  |  |
| Semester 0                  | 2  |     |         |  |  |
| ITE 3962                    | Project **   | С   | 6       |  |  |
| ITE 3742                    | Web Services                                       | Е   | 3       |  |  |
| ITE 3642                    | Marketing  | Е   | 3       |  |  |
| ITE 3432                    | Data Mining  | Е   | 3       |  |  |
| ITE 3832                    | Probability and Statistics                         | Е   | 3       |  |  |
| ITE 3442                    | Management Information Systems                     | Е   | 3       |  |  |
| ITE 3752                    | Human Computer Interaction                         | Е   | 3       |  |  |
| ITE 3332                    | Quality Assurance in Practice                      | Е   | 3       |  |  |
| ITE 3652                    | Organizational Behavior                            | Е   | 3       |  |  |
| ITE 3522                    | Essentials of Artificial Cognitive Systems         | Е   | 3       |  |  |
| ITE 3532                    | Essentials of Machine Learning                     | Е   | 3       |  |  |
| Total Credi                 | ts - Semester 02                                   |     | 36      |  |  |
| Total Credi                 | ts - Level 03 (Compulsory 18 & Elective S1: 6+ S2: | 12) | 36      |  |  |

#### 7. Credit requirements to complete the each level

| Level 01                  |                |    |              |    |       |  |  |
|---------------------------|----------------|----|--------------|----|-------|--|--|
| Cradit Dogwiromanta       | GPA Compulsory |    | GPA Elective |    | Total |  |  |
| Credit Requirements       | <b>S1</b>      | S2 | <b>S1</b>    | S2 | Total |  |  |
| Total Credits required to |                |    |              |    |       |  |  |
| complete Level 01         | 16             | 14 | 0            | 0  | 30    |  |  |

| Level 02                  |                |    |              |    |       |  |  |  |
|---------------------------|----------------|----|--------------|----|-------|--|--|--|
| Cuadit Daguiromanta       | GPA Compulsory |    | GPA Elective |    | Tatal |  |  |  |
| Credit Requirements       | <b>S1</b>      | S2 | <b>S1</b>    | S2 | Total |  |  |  |
| Total Credits required to |                |    |              |    |       |  |  |  |
| complete Level 02         | 18             | 16 | 0            | 0  | 34    |  |  |  |

| Level 03                  |                |    |              |    |       |  |  |
|---------------------------|----------------|----|--------------|----|-------|--|--|
| Cradit Dogwiromanta       | GPA Compulsory |    | GPA Elective |    | Total |  |  |
| Credit Requirements       | <b>S1</b>      | S2 | <b>S1</b>    | S2 | Total |  |  |
| Total Credits required to |                |    |              |    |       |  |  |
| complete Level 03         | 12             | 6  | 6            | 12 | 36    |  |  |

| Total Credit Requirements to complete the degree |                   |                 |       |  |  |
|--|-------------------|-----------------|-------|--|--|
| Credit Requirements                              | GPA<br>Compulsory | GPA<br>Elective | Total |  |  |
| Credit Requirement - Level 1                     | 30                | 0               | 30    |  |  |
| Credit Requirement - Level 2                     | 34                | 0               | 34    |  |  |
| Credit Requirement - Level 3                     | 18                | 18              | 36    |  |  |
| Total  | 82                | 18              | 100   |  |  |

#### 8. Charges and Student Fees

#### 8.1 University Charges for Lateral Entry Students (HNDIT)

The registration and course fee of the (BIT) external degree is **Rs. 120,000** for third (03) year. Payments could be made either in full at the beginning of the of each academic year (Table 1) or in installments at the beginning of each academic semester (Table 2).

Payment for the rest of the subjects in L2 and L1 will be decided based on the no of credits per the module as listed below.

02 credits - Rs. 2250/= 03 credits - Rs. 2500/= 04 credits - Rs. 2750/=

|         | Registration<br>Fee | Programme Fee | Total       |
|---------|---------------------|---------------|-------------|
| Level 3 | Rs. 400             | Rs. 119,600   | Rs. 120,000 |

**Table 01:** Fee Structure for the Bachelor of Information Technology (BIT) external degree for students paying at the beginning of the Academic Programme.

|                    | Registration<br>Fee | Programme Fee | Total      |
|--------------------|---------------------|---------------|------------|
| Level 3 Semester 1 | Rs. 200             | Rs. 59,800    | Rs. 60,000 |
| Level 3 Semester 2 | Rs. 200             | Rs. 59,800    | Rs. 60,000 |
|                    | Total fees          |               | Rs.120,000 |

**Table 02:** Fee Structure for the Bachelor of Information Technology (BIT) external degree for students paying at the beginning of each Semester

The above fees are 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, if you have selected the partner organization mode to follow the programme, you are required to pay the lecture fee as per the fee structure of the selected partner organization which will be communicated to you by them. Your registration will be valid only after both payments are made.

#### 1. Contact Details

| Institute                      | Telephone                    | Website                  | email                     |
|--------------------------------|------------------------------|--------------------------|---------------------------|
| CODL<br>University of Moratuwa | 011 3082 787<br>011 3082 788 | www.codl.lk              | info@codl.lk              |
| OpenArc Campus                 | 0112 515050<br>0727 223 300  | www.openarc.edu.lk       | info@openarc.edu.lk       |
| Horizon Campus                 | 0114 365 555<br>0716 623 623 | www.horizoncampus.edu.lk | info@horizoncampus.edu.lk |

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