## Programming 1

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| *SMS Code* | IN510001/IX510001 | *Directed Learning hours* | 60 |
| *Level* | 5 | *Workplace or Practical Learning hours* | 0 |
| *Credits* | 15 | *Self-Directed Learning hours* | 90 |
| Prerequisites | None | *Total Learning Hours* | 150 |
| *This course partially replaces IT113001*  *Name of other Programme: Bachelor of Information Technology (version 2)* | | | |

***Aims***

To introduce students to the concepts of computational thinking and programming fundamentals.

***Learning Outcomes***

At the successful completion of this course, students will be able to:

1. Use basic programming constructs.
2. Utilize simple data structures.
3. Demonstrate sound programming practice.
4. Decompose a simple problem into a series of computer operations
5. Use one logic depiction method and apply it to simple tasks.
6. Implement depicted tasks in a programming language.
7. Implement routines as functions and as procedures.
8. Apply common methods to access files within an application

***Indicative Content***

* Program Design
* Algorithms
* Structured diagrams UML
* If statements, Nested Ifs, Switch statements
* Loops
* Arrays
* Data Types and Records
* Reading Files of Records
* Text files
* Version control

***Assessment***

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| **Assessment Activity** | **Weighting** | **Learning Outcomes** |
| Assignment | 20% | 1-7 |
| Tests | 70% | 1-7 |
| Lab tasks | 10% | 1-7 |