

**DETAIL REVISED SYLLABUS**

**for**

**BACHELOR OF COMPUTER APPLICATIONS**

**(BCA) DEGREE**

**Nagaland University**

**LUMAMI**

**1. About The Revised Syllabus**

There has been advancement in information Technology and consequent changes in needs of the industry in respect of which the syllabus was required to be updated. This document presents and proposes the 1<sup>st</sup> revised version of BCA syllabus which becomes effective for teaching with immediate effect. This revised BCA syllabus is designed to facilitate students in the development of concept based approach for problem solving using IT as a tool.

The BCA syllabus has been designed to produce Junior Programmers, EDP assistants/Web Designers/Lab demonstrators etc. equipped with latest knowledge and skills.

**2. Objective of the BCA Course**

The objective of the course is to enable a student to acquire the knowledge pertaining to Information Technology in order to make them industry ready when they complete the course.

The career options available to a BCA qualifiers are:

- Junior Programmer
- EDP Assistant
- Web Designer
- Lab Demonstrator
- 

**3. Structure of the Course.**

Detailed syllabus along with the course structure is enclosed for kind information. Bachelor of Computer Applications. There are twenty three compulsory paper, three elective paper and Ten practical.

Subject superscript by ++ indicate Practical subject.

**3.1 Semester 1**

| Sl<br>No. | Paper<br>Code         | Paper                                   | Hours per week |   | Credit |
|-----------|-----------------------|---|----------------|---|--------|
|           |                       |   | L              | P |        |
| 1.        | MAT:101               | Mathematics 1                           | 4              | - | 4      |
| 2.        | CMS:102               | Communication Skills                    | 3              | - | 3      |
| 3.        | ITA:103               | IT Tools and Applications               | 3              | - | 3      |
| 4.        | PCL:104               | Programming in 'C' language             | 4              | - | 4      |
| 5.        | BEL:105               | Basic Electronics                       | 4              | - | 4      |
| 6.        | ELL:106 <sup>++</sup> | Electronic lab I (Basic Electronic lab) | 1              | - | 1      |
| 7.        | SWL:107 <sup>++</sup> | Software lab I                          |                |   |        |
|           |                       | i. IT Tools and Applications            | -              | 1 | 1      |
|           |                       | ii. Programming in C                    | -              | 1 | 1      |
|           |                       | Total                                   |                |   | 21     |

**3.2 Semester 2**

| Sl. No | Paper Code            | Paper                                      | Hours per week |   | Credit |
|--------|-----------------------|--|----------------|---|--------|
|        |                       |  | L              | P |        |
| 1.     | MAT:201               | Mathematics II                             | 4              | - | 4      |
| 2.     | PPD:202               | Professional Personality Development       | 3              | - | 3      |
| 3.     | DSC:203               | Data Structure in C                        | 4              | - | 4      |
| 4.     | DEL:204               | Digital Electronics                        | 4              | - | 4      |
| 5.     | ELL:205 <sup>++</sup> | Electronic lab II (Digital Electronic lab) | -              | 2 | 2      |
| 6.     | SWL:206 <sup>++</sup> | Software lab II (Data Structure in C)      | -              | 2 | 2      |
|        |                       | Total                                      |                |   | 19     |

**3.3 Semester 3**

| Sl. No | Paper Code            | Paper   | Hours per week |   | Credit |
|--------|-----------------------|---|----------------|---|--------|
|        |                       |   | L              | P |        |
| 1.     | OSM:301               | Operating System  | 4              | - | 4      |
| 2.     | CON:302               | Computer Oriented Numerical Methods                       | 4              | - | 4      |
| 3.     | OOP:303               | OOP in C++  | 4              | - | 4      |
| 4.     | FAC:304               | Financial Accountancy                                     | 4              | - | 4      |
| 5.     | CMO:305               | Computer Organization                                     | 4              | - | 4      |
| 6.     | SWL:306 <sup>++</sup> | Software lab III<br>(Computer Oriented Numerical Methods) | -              | 2 | 2      |
| 7.     | SWL:307 <sup>++</sup> | Software lab IV (OOP in C++)                              | -              | 2 | 2      |
|        |                       | Total   |                |   | 24     |

**3.4 Semester 4**

| Sl. No | Paper Code            | Paper                           | Hours per week |   | Credit |
|--------|-----------------------|---------------------------------|----------------|---|--------|
|        |                       |                                 | L              | P |        |
| 1.     | DMS:401               | Database Management System      | 4              | - | 4      |
| 2.     | .NET:402              | C# and ASP.NET                  | 4              | - | 4      |
| 3.     | SAD:403               | System Analysis and Design      | 4              | - | 4      |
| 4.     | EME:404               | Environment & Ecology           | 4              | - | 4      |
| 5.     | SWL:405 <sup>++</sup> | Software lab V (C# and ASP.NET) | -              | 2 | 2      |
| 6.     | SWL:406 <sup>++</sup> | Software lab VI (DBMS)          | -              | 2 | 2      |
|        |                       | Total                           |                |   | 20     |

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**3.5 Semester 5**

| Sl. No | Paper Code            | Paper   | Hours per week |   | Credit |
|--------|-----------------------|---|----------------|---|--------|
|        |                       |   | L              | P |        |
| 1.     | MAP:501               | Microprocessor Architecture and programming                         | 4              | - | 4      |
| 2.     | CMG:502               | Computer Graphics   | 4              | - | 4      |
| 3.     | DCN:503               | Data Computer & Computer Networks                                   | 4              | - | 4      |
| 4.     | 504                   | Elective:- (choose any one)   | 4              | - | 4      |
|        | FMM:504               | Fundamentals of Multimedia  |                |   |        |
|        | ECM:504               | E-Commerce  |                |   |        |
|        | MBC:504               | Mobile computing  |                |   |        |
| 5.     | SWL:505 <sup>++</sup> | Software Lab VII<br>(Computer Graphics)                             | -              | 2 | 2      |
| 6.     | ELL:506 <sup>++</sup> | Electronic lab III<br>(Microprocessor Architecture and programming) | -              | 2 | 2      |
| Total  |                       |   |                |   | 20     |

**3.6 Semester 6**

| Sl. No | Paper Code | Paper  | Hours per week |   | Credit |
|--------|------------|--|----------------|---|--------|
|        |            |  | L              | P |        |
| 1.     | SWE:601    | Software Engineering                                   | 4              | - | 4      |
| 2.     | 602        | Elective:- (choose any one)                            | 4              | - | 4      |
|        | NIS:602    | Network and information Security                       |                |   |        |
|        | TOC:602    | Theory of Computation                                  |                |   |        |
|        | DBS:602    | Distributed System                                     |                |   |        |
| 3.     | BOM:603    | Business Organization and Management                   | 4              | - | 4      |
| 4.     | 604        | Project<br>i) Seminal<br>ii) Viva Voice<br>iii) Report |                | - | 4      |
|        | PRO:604    |  |                |   |        |
|        | DAA:604    |  |                |   |        |
| Total  |            |  |                |   | 16     |

**4. Detailed Syllabus (Enclosed separately).**