# SYLLABI OF COURSES OFFERED

## FOUNDATION COURSES

Foundation courses which are conducted only at the 100 level are compulsory for all students. The grades of the foundation courses credits will not be counted when the final GPA is calculated.

| **100 LEVEL – FOUNDATION COURSES** | | | | | |
|---|---|---|---|---|---|
| Course Number | Course Title | No. of credits | Prerequisites | Compulsory for | |
| | | | | General Degree | Special Degree |
| EN 100 | Basic English | 2 | | √ | √ |
| CS 100 | Computer Applications | 2 | | √ | √ |
| BL 100* | Basic Life Sciences | 2 | | √ | √ |
| MT 100† | Mathematics for Biological Sciences | 2 | | √ | √ |
| SE 100 | Introduction to Science and Society | 0 | | √ | √ |

* For those who have not offered Biology at the G.C.E. (A/L) Examination

† For those who have not offered Combined Mathematics or Mathematics at the G.C.E. (A/L) Examination

**BL 100 Basic Life Sciences (2 credits)**

***Biology of Plants and Animals*:** Cell structure (molecular and organelle) and function. Cell cycle, mitosis and meiosis. Anatomical and histological organization of organ systems of plants and animals cells. Function of organsystems.

***Life and environment*:** energy and life, photosynthesis and respiration. Basic concepts in ecology. Biodiversity. Human activities and the ecosystem. Conservation.

***Human Biology*:** Human blood groups, Genetic diseases. Reproduction. Sexually transmitted diseases. Chemicals and human health.

***Current trends in human Biology*:** Recombinant DNA technology, GM foods, cancer, DNA forensics, Biological agents as weapons.

***Interactive learning exercises in biology.***

**CS 100 Computer Applications (2 credits)**

Introduction to Computer and operating Systems,

Micro Computer Applications: Use of Software Packages- Spread Sheet applications, DBMS applications, Utility programs and Word processing.

Data Protection Techniques: Data security techniques, Computer Viruses and prevention. Data Communication: Email, Internet and Networking of Computers.

Introduction to a Programming Language: Procedures, Functions, File handling, Application of a DB management.

(This course includes both theory and practicals)

Recommended Texts:

1. Computer Science, C.S.French
2. Programmer's Guide to Foxpro 2.0, D. Howard
3. Computer viruses, Robert Slade

**EN 100 Basic English (2 credit)**

(This course will be conducted over two semesters of the same academic year)

***Grammar*:** Parts of speech, Active & passive voice structures and Modals. Sentence Structure

Paragraph Writing: a simple description (object/element), a comparison, a process.

Conditionals - Relating to discussion part of report, Conjunctions, Prepositions of time/place. It/There Structure, Reported Speech, Perfect tense.

***Listening***: Listening Skills: Identification, Labelling, Drawing, Taking down specific information in the form of diagrams, tables, graphs, tree-diagrams and filling in blanks. Prediction and Taking down important points using above strategies. Language through Popular Songs, Dictation & Punctuation Listening Comprehension, Listening and Note-taking.

***Reading***: Surveying a textbook, skimming and scanning, main idea and the details; Description, definition, cause and effect, steps, comparison, characteristics, reasons, examples etc., Language through Poetry, Speech: Communicative activities

Consolidation of reading skills, Skimming and scanning, Cohesive devices - Arrangement of a Paragraph, Reading and Note-taking skills, Reading Comprehension (General Reading, Subject Reading).

***Writing***: Report Writing, Content vocabulary and structure vocabulary, Paragraph Writing: Main idea, Supporting details, Organisation of Written discourse, Making Inferences (Logical Inferences)

**MT 100 Mathematics for Biological Sciences (2 credits)**
Sets and inequalities, Linear equations, Quadratic equations, Functions and graphs, Trigonometric Functions, Limits, Derivatives, Curve sketching, Maximum-minimum problems, Exponential and logarithmic functions Techniques of integration, Areas and volumes, partial derivatives,
Introduction to vectors, Matrices and determinants.

Recommended texts:

1. *Mathematics for Biological Sciences*, J.C. Arya and R.W. Lardner

**SE 100 Introduction to Science and Society (0 credits)**
Scientific Method; Milestones in Science; Science in Development; Scienc e and the Law; Science and Ethics