#### Model curriculum structure for 4 year Non-AICTE UG programs for B.Sc. in IT(Cyber Security)

| Sem | Major (Offline)  | Minor (Blended<br>Mode)                     | Inter<br>Disciplinary<br>(Offline)                         | Ability<br>Enhancement<br>(Offline)                            | Skill<br>Enhancemen<br>t (Online<br>/Sessional)   | Common<br>Value<br>added<br>Course<br>(SESSIONAL)    | Total<br>credits |
|-----|--|---|--|--|---|--|------------------|
|     | Sub 1: Fundamental of Safe Programming practices Fundamental of Safe Programming practices using C lab [3+2 credits]  Sub 2: Introduction to Digital Electronics Digital Electronics Lab [3+2 credits] | Sub 1: Principles of Management [ 3credits] | Any one from<br>GE baskets<br>Basket A or D<br>(3 credits) | English & Professional Communication [2 credits]               | Life Skills & Personality Development [2 credits] | Yoga/ Health<br>& Wellness/<br>Sports<br>[2 credits] | 22               |
| II  | Sub 1: Introduction to Information Security Introduction to Information Security Lab [3+2 credits] Sub 2:  | Sub 1: Organization Behavior [ 3credits]    | Any one from<br>GE baskets<br>Basket B or E<br>[3 credits] | Modern<br>Indian<br>Languages<br>and Literature<br>[2 credits] | IT Skills<br>[2 credits]                          | Critical Thinking/ NSS/ Mental Health  [2 credits]   | 22               |
|     | Study of Computer Architecture and organization [5 credits]  |   |  |  |   |  |                  |

| III | Sub 1: Study of Data structure and Algorithms Data structure lab Using C/Python [3+2 credits] Sub 2: DBMS and SQL injection Attack DBMS and SQL injection Attack Lab [3+2 credits] | <b>Sub 1:</b> Principles of Marketing [4 credits]   | Any one<br>from GE<br>baskets<br>Basket C or F<br>[3 credits] | The Constitution,<br>Human Rights<br>& Law<br>[2 credits] | Understanding<br>basics of Cyber<br>Security<br>[2 credits]  | 21 |
|-----|--|---|---|---|--|----|
| IV  | Sub 1:  Ethical Hacking  [4 credits]  Sub 2:  Operating System with UNIX Operating System with UNIX lab [3+1 credits]  Sub 3:  OOPs with JAVA OOPs with JAVA lab [3+2 Credits]     | Sub 1: Human resource Management [ 4 credits]  Sub 2: Sales and distribution management /E- Commerce [ 4 credits] |   | Society Culture<br>& Human<br>Behaviour<br>[2 credits]    |  | 23 |
| V   | Sub 1: Computer Networking Computer Networking Lab [3+2 Credits] Sub 2: Cyber Law and Cyber Crime Investigation [5 Credits]  | Sub 1: Financial management [4 credits]  Sub 2: Entrepreneurship [4 credits]                                      |   |   | Internship to be started after exam of 4 <sup>th</sup> sem (sem break) and completed within 5 <sup>th</sup> sem(weekend)  [ 4 credits] | 22 |

| VI   | Sub 1: Cyber Security Vulnerabilities & Safeguards [4 credits] Sub 2: Digital Forensics  Digital Forensics Lab [3+2 credits] Sub 3: Web Technology Web Technology Lab [3+2 Credits] | Sub 1: Customer relationship management  [4 credits] Sub 2: Career planning and management [4 credits] |  |                                    | 22 |
|------|---|--|--|------------------------------------|----|
| VII  | Sub 1: Cryptography and Network Security [5 Credits)  Sub 2: Research Methodology [4 credits]   | Sub 1:  Consumer behavior [4 credits]  Sub 2: Strategic management [4 credits]                         |  |                                    | 22 |
| VIII | Sub 1: Security Assessment and Risk Analysis [5 Credits] Sub 2: Blockchain and Crypto currency [5 Credits]  |  |  | Research<br>Project<br>[12credits] | 22 |

| Ī | 19 sub –   | 11 sub –   | 3 sub –    | 4 sub –    | 3 sub & Int &Proj – | 2 sub –   |     | İ |
|---|------------|------------|------------|------------|---------------------|-----------|-----|---|
|   | 91 credits | 42 credits | 09 credits | 08 credits | 22 credits          | 4 credits | 176 |   |

#### Note:

Effective from academic session 2023-24

- 1. Normally all 5 credit courses will be either theory (3) + practical (2) {100+100 marks} or theory (4) + tutorial (1) [100 marks]
- 2. Normally all 4 credit courses will be either theory (3) + tutorial (1) or theory (4) [100 marks]
- 3. Normally all 3 credit courses will be theory (3) Inter disciplinary (5 to 6 baskets) [100 marks]
- 4. Normally all 2 credit courses AEC/SEC/CVA would be theory or online course
- 5. 7/8<sup>th</sup> semester Major subjects could include Projects in core, if required
- 6. 100/200/300/400 level should be maintained as per UGC document

\*\*Note: The green highlighted cells are modified as per the instruction given by competent authority remaining all are same as B.Sc. IT Draft syllabus. We have already sent our feedback regarding the modification needed for the selection of minor subjects and others.