

# **GANDHINAGAR UNIVERSITY**

Established and Incorporated under Gujarat Private Universities Act 2009 Amendment: Guj. Act No. 7 of 2022

## Gandhinagar Institute Technology Post Graduate Program in Engineering/Technology

## Post-Graduate Diploma in Cyber Security, PGDCS

## **Academic Regulations**

## **R.1 ADMISSION**

Any graduate from a recognized university candidate is eligibility for admission to the two year Post-Graduate Diploma (PG Diploma) in Cyber Security.

## **R.2 PROGRAMME OF STUDY**

A student shall follow the prescribed programme set out in the programme of study enclosed at Annexure -1 for the respective programme.

## **R.3 EXEMPTIONS**

Exemptions are not applicable for the PG Diploma Program.

## **R.4 REGISTRATION**

Subject registration is required only for the elective subjects offered in the respective programme for enrolled students in the respective regular program/course.

A student shall not be permitted to attend any classes without completing his/her registration formalities. The registration formalities must be completed by the student in person or on e-Governance software of the Gandhinagar University.

## **R.5** REQUIREMENTS FOR REGISTRATION

The student has successfully completed the pre-requisites for the subject, and the subject is being offered in the semester.

## **R.6** ASSESSMENT OF STUDENT PERFORMANCE IN SUBJECTS

Grading in each subjects are assigned based on earned marks. The performance of a student in a subject is judged through (i) Continuous Internal Evaluation of theory and practical (ii) End-Semester Theory and practical Examinations. The minimum passing criteria in each subject is 50%.

Continuous internal evaluation component may be done through written tests (MSE/RMSE) and/or quizzes, Seminar, assignment etc. in case of theory and practical performance in lab/case study/viva in case of practical.

External Viva-voce and Dissertation will be conducted only at the end of the respective semester by the University and overall passing (out of total marks) will be 50%.

#### **R.7 EXAMINATIONS**

The end-semester examinations (Theory and Practical) for all subjects offered in each semester of an academic year will be conducted by the University.

No student shall be permitted for the end semester examination if he/she has not completed the required term work as per the rules and regulations in force.

The ratio between the external and internal theory assessment will be 60:40.

#### **R.8 LETTER GRADES**

The overall performance of a student in a course is represented by a letter grade with equivalent grade points as below:

| AA | 10 | CC | 06 |
|----|----|----|----|
| AB | 09 | CD | 05 |
| BB | 08 | DD | 04 |
| BC | 07 | FF | 00 |

A subject is completed successfully, i.e., credit is earned for a subject, when a letter grade DD or better is obtained in the subject.

#### **R.9 FAILURE IN A SUBJECT**

A student does not earn any credit for a subject when he/she gets a letter grade FF in the subject.

The letter grade FF obtained in a subject will be shown in the final transcript issued to the student whether he/she subsequently obtains another letter grade in a repeat attempt.

#### **R.10 PERFORMANCE EVALUATION (SGPA AND CGPA)**

The student's performance in a semester will be indicated by the semester grade point average (SGPA). The SGPA and CGPA (Cumulative grade point average) are calculated as below.

$$SGPA = \frac{\sum_{i=1}^{n} C_i G_i}{\sum_{i=1}^{n} C_i}$$

Where  $C_i$  is the number of credits of the course *i*;  $G_i$  is the grade point for the course *i*; where i=1 to n, **n**= number of courses in a semester.

Performance at the end of two or more consecutive semesters will be indicated by the CGPA. CGPA is calculated as below.

$$CGPA = \frac{\sum_{i=1}^{n} C_i G_i}{\sum_{i=1}^{n} C_i}$$

Where  $C_i$  is the number of credits of the course i;  $G_i$  is the grade point for the course i; where i=1 to n, n= number of courses of all semesters up to which CGPA is computed.

## **R.11 DISCONTINUATION FROM REGULAR STUDY**

Students who are having more than **4 backlog** up to the current semester excluding immediate previous semester are not eligible to continue study till the said criteria is fulfilled.

In such case student shall not be permitted for regular study of concerned next semester.

## **R.12 REPEAT SUBJECTS**

A Subject which usually accounts for a higher rate of failure may be offered again as a repeat subject or subjects as the case may be in the following semester.

Repeat subjects are not offered to students as a matter of right. These subjects are offered subject to the availability of manpower and other facilities.

### **R.13 REQUIREMENTS FOR THE AWARD OF DEGREE**

Total of **70** credits as prescribed under the programme of studies.

A minimum Cumulative Grade Point Average (CGPA) of 4.00.

No course with letter grade FF.

A student who for whatever reason is not able to complete the programme within the normal period or the minimum duration prescribed for the programme, may be allowed two years period beyond the normal period to clear the backlogs to be qualified for the degree.

The general formula, therefore, should be as follows:

Time Span = N + 2 years for the completion of the programme.

Where N stands for the normal minimum duration prescribed for the completion of the programme.

In exceptional circumstances a further extension of one more year may be granted upon the representation to Honorable Vice Chancellor stating the reason for extension request with supporting documents.

During the extended period, student shall be considered as private candidate and also not eligible for ranking.

## **R.14 AWARD OF CLASS**

The class awarded to a student with his Master of Valuation degree is decided by final CGPA as under.

DISTINCTION - CGPA  $\geq$  7.5 FIRST CLASS - CGPA  $\geq$  6.0 SECOND CLASS - CGPA  $\geq$  5.0 PASS CLASS - CGPA < 5.0

## **R.15 TRANSCRIPT**

The Transcript issued to the student at the time of leaving the University will contain a consolidated record of all the courses taken by him, grades obtained, **SGPA**, **CGPA** etc.

## **R.16 ATTENDANCE**

A Student will be required to attend at least 75% of the total theory lectures organized in each subject during the semester.

| Program Name: Post Graduate Diploma ()  |  |             |                  |                  | Program Code: () Cyber Security   |   |  |   |   |                                      |                         |  |
|---|--|-------------|------------------|------------------|-----------------------------------|---|--|---|---|--------------------------------------|-------------------------|--|
| Semester / Yea  | ar: First Year PG Diploma - Semester I   |             |                  |                  | Eff                               | ective F                                  | rom Academie   | c Year: 2023-2  | 24  |                                      |                         |  |
| Subject Code  | Subject Name   | Credit      | H                | [ou              | irs per week                      |   | Theory (Marks)   |   | Practical (Marks)                                       |                                      | Total                   |  |
|   |  |             | L                | Т                | Р                                 | Total                                     | University<br>Assessment   | Continuous<br>Assessment  | University<br>Assessment                                | Continuous<br>Assessment             | (Marks)                 |  |
|   | Network Security Fundamentals  | 4           | 2                | 1                | 2                                 | 5   | 60   | 40  | 30  | 20                                   | 150                     |  |
|   | Cryptography and Network Security  | 4           | 2                | 1                | 2                                 | 5   | 60   | 40  | 30  | 20                                   | 150                     |  |
|   | Information Security Management  | 4           | 2                | 1                | 2                                 | 5   | 60   | 40  | 30  | 20                                   | 150                     |  |
|   | Secure Software Development  | 4           | 2                | 1                | 2                                 | 5   | 60   | 40  | 30  | 20                                   | 150                     |  |
|   | Legal and Ethical Aspects of<br>Cybersecurity  | 4           | 2                | 1                | 2                                 | 5   | 60   | 40  | 30  | 20                                   | 150                     |  |
|   |  | 20          |                  |                  |                                   | 25  |  |   |   |                                      | 750                     |  |
| Program Name: Post Graduate Diploma ()<br>Semester / Year: First Year PG Diploma - Semester I |  |             |                  |                  |                                   | oram (                                    | ode• ( ) ( 'vher   | • Security  |   |                                      |                         |  |
| Comparton / Va  | <b>▲</b>   |             |                  |                  | -                                 |   | ode: () Cyber  |   | N 4   |                                      |                         |  |
| Semester / Yea  | <b>▲</b>   |             | п                |                  | Eff                               | ective F                                  | rom Academic   | c Year: 2023-2  |   | (Monka)                              |                         |  |
|   | ar: First Year PG Diploma - Semester I   | Credit      |                  |                  | Eff                               | ective Fi<br>er week                      | rom Academic<br>Theory   | c Year: 2023-2<br>(Marks)   | Practical   | (Marks)                              | Total                   |  |
| Semester / Yes  | ar: First Year PG Diploma - Semester I   | Credit      | H<br>L           |                  | Eff                               | ective F                                  | rom Academic   | c Year: 2023-2  |   | (Marks)<br>Continuous<br>Assessment  | Total<br>(Marks)        |  |
|   | ar: First Year PG Diploma - Semester I   | Credit<br>4 |                  | Т                | Eff<br>rs pe                      | ective Fi<br>er week                      | rom Academic<br>Theory<br>University                                 | c Year: 2023-2<br>(Marks)<br>Continuous                                 | Practical<br>University                                 | Continuous                           |                         |  |
|   | ar: First Year PG Diploma - Semester I<br>Subject Name   |             | L                | Т<br>1           | Effe<br>rs pe<br>P                | ective Fi<br>er week<br>Total             | rom Academic<br>Theory<br>University<br>Assessment                   | c Year: 2023-2<br>(Marks)<br>Continuous<br>Assessment                   | Practical<br>University<br>Assessment                   | Continuous<br>Assessment             | (Marks)                 |  |
|   | ar: First Year PG Diploma - Semester I<br>Subject Name<br>Advanced Network Security  | 4           | L<br>2           | T<br>1<br>1      | Effe<br>rs pe<br>P<br>2           | ective Fier week Total 5                  | rom Academic<br>Theory<br>University<br>Assessment<br>60             | x Year: 2023-2<br>(Marks)<br>Continuous<br>Assessment<br>40             | Practical<br>University<br>Assessment<br>30             | Continuous<br>Assessment<br>20       | ( <b>Marks</b> )<br>150 |  |
|   | ar: First Year PG Diploma - Semester I<br>Subject Name<br>Advanced Network Security<br>Web Application Security<br>Intrusion Detection and Prevention  | 4           | L<br>2<br>2      | T<br>1<br>1      | Effe<br>rs pe<br>P<br>2<br>2      | ective Fier week<br>Total<br>5<br>5       | rom Academic<br>Theory<br>University<br>Assessment<br>60<br>60       | c Year: 2023-2<br>(Marks)<br>Continuous<br>Assessment<br>40<br>40       | Practical<br>University<br>Assessment<br>30<br>30       | Continuous<br>Assessment<br>20<br>20 | (Marks) 150 150         |  |
|   | ar: First Year PG Diploma - Semester I<br>Subject Name<br>Advanced Network Security<br>Web Application Security<br>Intrusion Detection and Prevention<br>Systems<br>Secure System Design and | 4<br>4<br>4 | L<br>2<br>2<br>2 | T<br>1<br>1<br>1 | Effe<br>rs pe<br>P<br>2<br>2<br>2 | ective Freek<br>Total<br>5<br>5<br>5<br>5 | rom Academic<br>Theory<br>University<br>Assessment<br>60<br>60<br>60 | x Year: 2023-2<br>(Marks)<br>Continuous<br>Assessment<br>40<br>40<br>40 | Practical<br>University<br>Assessment<br>30<br>30<br>30 | ContinuousAssessment20202020         | (Marks) 150 150 150     |  |

## PG Diploma (Cyber Security) Annexure 1.

| Program Name: Post Graduate Diploma ()   |   |        |     | Program Code: () Cyber Security |  |       |                          |                          |                          |                          |         |  |  |
|--|---|--------|-----|---------------------------------|--|-------|--------------------------|--------------------------|--------------------------|--------------------------|---------|--|--|
| Semester / Year: First Year PG Diploma - Semester III  |   |        |     |                                 | Effective From Academic Year: 2023-24  |       |                          |                          |                          |                          |         |  |  |
|  | Subject Name                            | Credit | Hou |                                 | rs per week  |       | Theory (Marks)           |                          | Practical (Marks)        |                          | Total   |  |  |
| Subject Code   |   |        | L   | Т                               | Р  | Total | University<br>Assessment | Continuous<br>Assessment | University<br>Assessment | Continuous<br>Assessment | (Marks) |  |  |
|  | Digital Forensics and Incident Response | 4      | 2   | 1                               | 2  | 5     | 60                       | 40                       | 30                       | 20                       | 150     |  |  |
|  | Wireless and Mobile Security            | 4      | 2   | 1                               | 2  | 5     | 60                       | 40                       | 30                       | 20                       | 150     |  |  |
| Cloud Security   |   | 4      | 2   | 1                               | 2  | 5     | 60                       | 40                       | 30                       | 20                       | 150     |  |  |
|  | Cybersecurity Risk Management           | 4      | 2   | 1                               | 2  | 5     | 60                       | 40                       | 30                       | 20                       | 150     |  |  |
|  | Secure Coding and Software Testing      | 4      | 2   | 1                               | 2  | 5     | 60                       | 40                       | 30                       | 20                       | 150     |  |  |
|  |   | 20     |     |                                 |  | 25    |                          |                          |                          |                          | 750     |  |  |
| Program Name: Post Graduate Diploma ()<br>Semester / Year: First Year PG Diploma - Semester IV |   |        |     |                                 | Program Code: ( ) Cyber Security         Effective From Academic Year: 2023-24 |       |                          |                          |                          |                          |         |  |  |
|  |   | Credit | Hou |                                 | urs per week   |       | Theory (Marks)           |                          | Practical (Marks)        |                          | Total   |  |  |
| Subject Code   | Subject Name                            |        | L   | LT                              | Р  | Total | University<br>Assessment | Continuous<br>Assessment | University<br>Assessment | Continuous<br>Assessment | (Marks) |  |  |
|  | Industrial Control Systems Security     | 4      | 2   | 1                               | 2  | 5     | 60                       | 40                       | 30                       | 20                       | 150     |  |  |
|  | Advanced Cryptography                   | 4      | 2   | 1                               | 2  | 5     | 60                       | 40                       | 30                       | 20                       | 150     |  |  |
|  | Secure IoT (Internet of Things)         | 4      | 2   | 1                               | 2  | 5     | 60                       | 40                       | 30                       | 20                       | 150     |  |  |
|  | Cybersecurity Audit and Compliance      | 4      | 2   | 1                               | 2  | 5     | 60                       | 40                       | 30                       | 20                       | 150     |  |  |
|  | Research Project/Dissertation           | 4      | 0   | 0                               | 4  | 8     | 60                       | 40                       | 30                       | 20                       | 150     |  |  |
|  |   | 20     |     |                                 |  | 28    |                          |                          |                          |                          |         |  |  |