DIRECTION

No.14 /2025 Date :- 13 / 02/2025

Subject:- **Examinations leading to the Diploma in Cyber Security Course [One YearTwo Semesters Course – Under National Education Policy] in the Faculty of Science & Technology, Direction, 2025.**

Whereas, Direction No. 56/2024, Dated 22.8.2024 with respect to an examination leading to the Diploma in Cyber Security (One Year – Two Semesters Course) is in existence,

AND

Whereas, the Board of Study in Computer Science (including Computer Application and Computer Science) (Computer Software) has prepared the Draft Syllabi and Teaching, Learning, Examination and Evaluation Scheme of the said programme as per National Education Policy -2020 NSQF Level 5 and recommend the same to the Faculty of Science and Technology,

AND

Whereas, Hon'ble Vice-Chancellor has approved the recommendation of Board of Study in Computer Science (including Computer Application and Computer Science) (Computer Software) on behalf of Faculty of Science and Technology and Academic Council under sub section (7) of Section on 19/12/2024,

AND

Whereas, the said programme is to implemented from the Academic Session 2024-2025and the National Education Policy -2020 has been implemented from the Academic Session 2024-2025 to all the U.G.C. approved under Graduate Courses and hence this programme also is to be governed by this system,

AND

Whereas, the Scheme of Teaching, Learning, Examination and Evaluation of Semester I to II of the programme of Diploma in Cyber Securityis to be regulated by issuing an Ordinance/Regulation,

AND

Whereas making an Ordinance/Regulaton is a time consuming process.

Now, therefore I, Dr. Milind Barhate, Vice-Chancellor, Sant Gadge Baba Amravati University, Amravati in exercise of powers conferred upon me under Sub-section (8) of Section 12 of the Maharashtra Public Universities Act, 2016 do hereby direct as under :-

1. (i)This Direction may be called, "Examinations leading to the Diploma inCyber Security One year – Two Semesters Course) **Under National Education Policy]** Direction, 2025.
   ii)The Diploma in Cyber Security shall belong to the Faculty of Science and Technology.
2. This Direction shall come into force from the Academic Session as follows :-
   i) Semester I and II – from the Academic Session 2024-2025.
3. The provisions of directions, eligibility criteria and other details are as follows and the Scheme of Teaching, Learning, Examination and Evaluation of semester – I to II are appended herewith vide Annexure - A
4. The Duration of each semester of the new Course Diploma in Cyber Security shall be of sixmonths.
5. Following shall be the Examinations leading to the Diploma in Cyber Security namely:
   (i) Diploma in Cyber Security Semester I andSemester II.
6. (i) The examination specified in paragraph 5 above shall be held twice in a year and at such places and on such dates as may be appointed by the University.
   (ii) Main Examination of Semester I shall be held in Winter and Supplementary Examination shall be held in Summer.
   (iii) Main Examination of Semester II shall be held in Summer and Supplementary Examination shall be held in Winter.
7. **Eligibility Criteria for Admission**:

   The candidate who has passed 12th Standard examination of Maharashtra State Board of Secondary and Higher Secondary Education with Mathematics or +2 level Higher Secondary Vocational Certificate (H.S.V.C.) in Electronic Technology or Computer Technology or an examination equivalent thereto.

PROGRAMMEEDUCATIONALOBJECTIVES(PEO's):

1) Candidateswillbeequippedfor entry-levelprofessions incybersecurity orrelated businesses.
2) Candidateswillexhibittheabilitytoengageinlifelonglearningandadapttochangingtechnologyand challenges in the cybersecurity domain.

3) Candidateswilldemonstratestrongprofessionalethics,effectivecommunicationskills,andthe capacity to collaborate in different groups.
4) Candidateswillhavetheanalyticalandcriticalthinkingabilitiesnecessarytoeffectivelyidentify, analyze, and resolve cybersecurity concerns.
5) Candidates will have the fundamental knowledge and abilities required to seek additional education and career advancement possibilities in cybersecurity and associated fields.

PROGRAMMEOUTCOMES(PO'S):

1) Demonstrate understanding of fundamental concepts,principles, and practices in cyber security.
2) Apply techniques to secure information systems, protect data, and mitigate cyber security risks.
3) Implement measures to secure network infrastructures and defend against network-based attacks.
4) Identify and analyze cyber threats, vulnerabilities, and incidents to proactively protect systems andnetworks.
5) Recognizeethical,legal,andregulatoryissuesrelatedtocybersecurityandadheretoprofessional codes of conduct.

PROGRAMMESPECIFICOUTCOMES(PSO's):

1. Cybersecurity Fundamentals: Candidates will demonstrate a comprehensive understanding of core concepts, theories, and principles in cybersecurity, including encryption, authentication, access control, and security protocols.
2. Cyber Threat Analysis and Detection: Candidates will be proficient in identifying, analyzing, and classifyingcyberthreats, includingmalware,phishingattacks,andinsiderthreats,usingvarioustools and techniques.
3. Security Controls Implementation: Candidates will be able to implement security controls and measures to safeguard information systems, networks, and applications against cyber threats, vulnerabilities, and attacks.
4. Incident Response and Recovery: Candidates will possess the skills to effectively respond to cybersecurityincidents,containbreaches,conductdigitalforensicsinvestigations,andrestoreaffected systems to normal operation.
5. Network Security Administration: Candidates will be competent in administering secure network infrastructures, configuring firewalls, intrusion detection/prevention systems (IDS/IPS), and implementing secure network architectures.
6. SecureSoftware Development Practices: Candidates will demonstrate proficiency in applying secure coding practices, conducting secure code reviews, and integrating security into the software development lifecycle (SDLC) to develop resilient and secure software applications.
7. Compliance and Regulatory Frameworks: Candidates will understand the legal and regulatory requirements relevant to cybersecurity, including data protection laws, industry standards (e.g., PCI DSS, HIPAA), and compliance frameworks (e.g., NIST, ISO/IEC 27001).
8. Security Awareness and Training: Candidates will possess the skills to promote cybersecurity awareness,delivertrainingprograms,andeducatestakeholdersonsecuritybestpractices,policies,and procedures.

Career Opportunities: After successful completion of this programme, the learners may choose their career as: Cyber Security Consultants, Cyber Security Analyst, Systems and Networks Security Professional, IT Security Officer, IT Infrastructure Analyst, Quality and Security Analyst, Service Division (IT enabled services, maintenance service and installation of computer services), Software Development and Testing Industries, Web Development and Testing Industries, Mobile Applications Development and Testing Industries, Cloud Services Support Engineer, Telecommunication Sector, Defense Services/Police Services/Cyber Services/Forensic Services, Network/Application Security Analyst, Cyber Security Analyst, Cyber Security Analyst, Security Automation, Cyber Security Practitioner, Cyber Defense Analyst, Penetration Tester, Information Security Engineer in leading IT Industries and to act as Cyber Security Experts in the Governmental Organizations, etc

9 .For purposes of instruction and examinations the students shall study sequentially.

10 The Examinations shall be held at such places and on such dates as may be notified by the University.

11 Subject to his/her compliance with the provisions of this Direction and of other Ordinances (Pertaining to Examinations in General) in force from time to time, the student for admission, at the end of the course of study of a particular term shall be eligible to appear at it, if,

i) The student satisfied the condition in the table and the provision thereunder.

TABLE – I

Sr. No	Name of Examination	The student should have completed the Session / term satisfactorily
1	**2**	**3**
1	Diploma in Cyber Security - Semester I	Semester I
2	Diploma in Cyber Security - Semester II	Semester II

(**Note**: Subjects prescribed and numbered in the Scheme of Examination shall be treated as separate subjects.

However, the Theory and Practical, if any, of the subject shall be treated as separate Head of Passing.)

ii) The student has compiled with the provisions of Ordinance pertaining to Examination in general.

iii) The student has prosecuted a regular course of study in the University Department /College affiliated to the University.

iv) The student has in the opinion of the Head of the Department/Principal shown satisfactory progress in his / her studies

12 Papers and the practicals in which an examinee is to be examined, maximum marks for these and the minimum pass marks which an examinee must obtain in order to pass in the subject and the examination are detailed in the Examination Scheme.

13 Examination fees for each part of the examination and also the Practical examination shall be as prescribed
by the University from time to time.

14 The Scheme of Teaching, Learning, Examination & Evaluation shall be as per "**Appendix-A**" appended with this Direction.

15 i) The scope of the subject is as indicated in the syllabus.
ii) The medium of instruction and examination shall be English.

16 The fees for each part of the Examinations (Theory & Practical) shall be as prescribed by University from
from time to time.

17. The computation of Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA of an examinee shall be as given below :-

The marks will be given in all examinations which will include college assessment marks and the total marks for each Theory / Practical shall be converted into Grades as per **Table II**.

SGPA shall be calculated based on Grade Points corresponding to Grade as given in Table II and the Credits allotted to respective Theory / Practical shown in the scheme for respective Semester.

SGPA shall be computed for Semester I & II and CGPA shall be computed in Semester II based on SGPA of Semester I & II of P.G.D.C.S. Course. :-

SGPA = C1 x G1 + C2 x G2 + ... + Cn x Gn C1 + C2 + ... + Cn

Where C1 = Credit of individual Theory / Practical

G1 = Corresponding Grade Point obtained in the respective Theory / Practical

CGPA = (SGPA) I X (Cr) I + (SGPA) II X (Cr) II
(Cr) I X (Cr) II

Where (SGPA) I = SGPA of I Semester
(Cr) I = Total Credits for I Semester

(SGPA) II =SGPA of II Semester
(Cr) I = Total Credits for II Semester

CGPA equal to 6.00 and above shall be considered as equivalent to First Classwhich shall be mentioned on Grade Card of II Semester as a foot note.

TABLE II

THEORY

Grade	Percentage of Marks	Grade Points
AA	80 ≤ Marks ≤ 100	10
AB	70 ≤ Marks < 80	9
BB	60 ≤ Marks < 70	8
BC	55 ≤ Marks < 60	7
CC	50 ≤ Marks < 55	6
CD	45 ≤ Marks < 50	5
DD	40 ≤ Marks < 45	4
FF	00 ≤ Marks < 40	0
ZZ	Absent in Examination	---

PRACTICAL

Grade	Percentage of Marks	Grade Points
AA	85 ≤ Marks ≤ 100	10
AB	80 ≤ Marks < 85	9
BB	70 ≤ Marks < 80	8
BC	70 ≤ Marks <75	7
CC	65 ≤ Marks <70	6
CD	60 ≤ Marks <65	5
DD	50 ≤ Marks <60	4
FF	00 ≤ Marks <50	0
ZZ	Absent in Examination	---

18. Provisions of Ordinance No.18 of 2001 in respect of an Ordinance to provide grace marks for passing in a Head of passing and improvement of Division (Higher Class) and getting distinction in the subject and condonation of deficiency of marks in a subject in all the faculties prescribed by the Direction No.15 of 2017 and Ordinance No. 18 of 2001 shall apply to each examination under this Direction.

19. An examinee who does not pass or who fails to present himself/ herself for the examination shall be eligible for readmission to the same examination, on payment of fresh fees and such other fees as may be prescribed.

20. As soon as possible after the examination, the Board of Examinations shall publish a result of the examinees. The result of the Examination of final Semester of the Course Diploma in Cyber Security shall be classified as above and merit list shall be notified as per Ordinance No.6.

21. Notwithstanding anything to the contrary in this Direction, no person shall be admitted to an examination under this Direction, if he/she has already passed the same examination or an equivalent examination of any Statutory University.

22. The examinees who have passed in all the subjects prescribed for Semester I and Semester II of the examination of the Diploma Course shall be eligible for award of Diploma in Cyber Security (One Year Two Semesters Course).

Sd/-
(Dr. Milind A. Barhate)
Vice-Chancellor

Date : 12/02/2025

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SantGadgeBabaAmravati University
DiplomainCyberSecurity(1 Year)[NEP NSQF-Level 5]

Sr-No.	Type	Subject Code	Subject	TeachingScheme (Hrs./Week)					ExaminationandEvaluation Scheme							
									Max.Marks					Min.PassingMarks		
									External Marks		InternalMarks		Total Marks			
				Th	Pr.	Total	Credits	Exam-Duration (Hrs.)	TH	PR	TH	PR		External	Internal	Total
								SEMESTER-I								
1	CoreSkill	N1DCS1	CyberSecurity Techniques	3	-	3	3	3	50	-	30	-	80	20	12	32
2	CoreSkill	N1DCS2	IntroductiontoEthicalHacking	3	-	3	3	3	50	-	30	-	80	20	12	32
3	CoreSkill	N1DCS3	ComputerNetworkandSecurity	3	-	3	3	3	50	-	30	-	80	20	12	32
4	CoreSkill	N1DCS4	FundamentalsofCyberLaws	3	-	3	3	3	50	-	30	-	80	20	12	32
5	SEC/lab	N1DCS5	CyberSecurityTechniques- LAB	-	4	4	2	-	-	25	-	25	50	10	10	20
6	SEC/lab	N1DCS6	Networkprogramming-LAB	-	4	4	2	-	-	25	-	25	50	10	10	20
7	SEC/lab	N1DCS7	PenetrationtestingwithLinux	-	4	4	2	-	-	25	-	25	50	10	10	20
8	GE	N1DCS8	CommunicationSkillsI	3	-	3	3	3	50	-	30	-	80	20	12	32
9	SEC/LAB	N1DCS9	CommunicationSkills-LAB	-	2	2	1	-	-	-	-	20	20	-	10	10
10	Assessment Hours					6										
	TOTAL					**35**	**22**						**570**			
								SEMESTER-II								
1	CoreSkill	N2DCS1	Cryptography	3	-	3	3	3	50	-	30	-	80	20	12	32
2	CoreSkill	N2DCS2	DigitalForensicandSecurity	3	-	3	3	3	50	-	30	-	80	20	12	32
3	CoreSkill	N2DCS3	WebSecurity	3	-	3	3	3	50	-	30	-	80	20	12	32
4	DSE	N2DCSE1 N2DCSE2	E1:CloudComputingfundamentalsand Security E2:ApplicationandNetworkSecurity	3	-	3	3	3	50	-	30	-	80	20	12	32
5	SEC	N2DCS4	LABbasedonN2DCS1,2,3	-	4	4	2	-	-	25	-	25	50	10	10	20
6	SEC	N2DCS5	Project/Internship*	-	4	4	2	-	-	25	-	25	50	10	10	20
7	SEC	N2DCS6	LABbased onN2DCSE1/E2	-	4	4	2	-	-	25	-	25	50	10	10	20
8	SEC	N2DCS8	CyberAttacksandCounterMeasures- LAB		4	4	2	-	-	25	-	25	50	10	10	20
9	GE	N2DCS8	CyberEthics	2		2	2	2	50	-	30	-	80	20	12	32
10	Assessment Hours					6										
	TOTAL					**36**	**22**						**600**			

***Internship:TwoCreditswillbeAwardedforMinimum60Hrsofinternship**