

Permission letter of value added courses from DHE, Panchkula

LIST OF GOVERNMENT COLLEGES WHERE SANCTION OF VALUE ADDED COURSES GRANTED			
Sr No	College Name	Year of Est	Name of Value Added Courses Sanctioned to the Govt. College
1	GC Ambala Cantt.	1997	1. Certificate course in Ethical Hacking 2. Certificate course in Creative Writing 3. Certificate course in Banking and Financial services 4. Certificate course in Practical Taxation 5. Certificate course in Green Chemistry
2	MHS GC Bhiwani	1971	1. Certificate course in Database Administration 2. Certificate course in Counselling Skills 3. Certificate course in Animation and Web Designing 4. Certificate course in Banking and Financial services 5. Certificate course in Presentation Skills
3	GCW Bhiwani	2003	1. Certificate course in Leadership and Teamwork 2. Certificate course in Business Communications 3. Certificate course in Yoga and Fitness / Nutrition 4. Certificate course in Practical Taxation 5. Certificate course in Tourism
4	GC Faridabad	1971	1. Certificate course in Computer Networking Course 2. Certificate course in Professional Etiquettes 3. Certificate course in Marketing and Advertising 4. Certificate course in Radio Jockeying, Anchoring and TV Journalism 5. Certificate course in Green Chemistry
5	GCW Faridabad	1992	1. Certificate course in Creative Writing 2. Certificate course in ENTREPRENEURSHIP 3. Certificate course in Radio Jockeying, Anchoring and TV Journalism 4. Certificate course in Office Automation 5. Certificate course in Tally & GST
6	GCW Bhodla Khara	1998	1. Certificate course in Public Speaking 2. Certificate course in Business Communications 3. Certificate course in Python 4. Certificate course in Banking and Financial services 5. Certificate course in Tourism
7	O GC Gurugram	1980	1. Certificate course in Database Administration 2. Certificate course in Digital Marketing 3. Certificate course in Tally & GST 4. Certificate course in Horticulture & Landscaping 5. Certificate course in Gender studies
8	GCG Sector-14 Gurugram	1963	1. Certificate course in Cyber Security 2. Certificate course in Professional Etiquettes 3. Certificate course in Office Automation 4. Certificate course in Marketing and Advertising 5. Certificate course in Green Chemistry
9	GC Sector-9 Gurugram	2004	1. Certificate course in Leadership and Teamwork 2. Certificate course in Counselling Skills 3. Certificate course in Business Communications 4. Certificate course in Practical Taxation 5. Certificate course in Computer Networking
10	GC Hisar	1950	1. Certificate course in Oracle SQL and PL/SQL 2. Certificate course in Presentation Skills 3. Certificate course in Leadership and Teamwork 4. Certificate course in Horticulture & Landscaping 5. Certificate course in Marketing and Advertising

OFFICE OF THE PRINCIPAL, GOVERNMENT P.G. COLLEGE, AMBALA CANTT

OFFICE ORDER


MEMO NO: GCA/23/2923

DATED: 02/11/2023

The following teachers have been allocated the Value Added Courses as sanctioned by the Government. The courses are offered free of cost to the students:

- | | |
|------------------------------------|---|
| 1. Ethical Hacking: | Dr. Poonam Dhiman, Computer Science Dept. |
| 2. Creative Writing: | Ms. Kusum, English Dept. |
| 3. Banking and Financial Services: | Dr. Shagun Ahuja, Commerce Dept. |
| 4. Practical Taxation: | Ms. Poonam Rajora, Commerce Dept. |

The teachers will enroll 50/60 students in each course for imparting 30 hours teaching and the details have to be uploaded at MIS portal of the college – on DGHE portal and weekly attendance is to be uploaded on MIS as well. Teachers are allowed to take classes through online mode as well followed by examination and award of Certificate by O/o DGHE and College. In charges are required to enroll the students by 8.11.2023 and to start the classes by 11.11.2023.


Principal
Government P.G. College
Ambala Cantt.

Exam Notice- Certificate Courses

OFFICE OF PRINCIPAL, GOVERNMENT P.G. COLLEGE AMBALA CANTT

URGENT NOTICE

MEMO NO: GCA/24/830

DATED: 20/04/2024

All the students of Certificate Courses are hereby informed that the final examination of their respective add on course will held through online mode (Google Meet) from 10.00 am to 12.00 noon as follow:

Sr.	Course	Date
1.	Banking and Financial Services	29.4.2024
2.	Practical Taxation, Ethical Hacking, Creative writing	30.4.2024

. The concerned teacher in charge will share the link for the Google Meet at 9.45 am with the students in their respective Whats App groups. Further the link for the Google form will also be shared with the students during the exam for the purpose of uploading and submission of the answer sheets.

Important Timings

1.	Sharing of Link for Google Meet	9.45 a.m.
2.	Start of Exam	10.00 a.m.
3.	Sharing of link of Google form	11.00 a.m.
4.	Uploading of answer sheets	Up to 12.15 p.m.

Students can contact with their respective Teacher In charge in case of any query regarding the examination which are as follow:

S.No	Certificate Course	Teacher In charge
1.	Banking and Financial Services	Dr. Shagun Ahuja,
2.	Practical Taxation	Ms. Poonam Rajora
3.	Ethical Hacking	Dr. Poonam Dhiman
4.	Creative writing	Ms. Kusum


PRINCIPAL
Principal
Govt. P.G. College
Ambala Cantt.

Session 2023-24

Name of Add on/Certificate programs offered	Year of offering	No. of times offered during the same year	Duration of the course	Number of students enrolled in the year	Number of students completing the course in the year
Ethical Hacking	2023-24	1	30 hours	41	29

Syllabus- Ethical Hacking

Paper Code:
Nomenclature: Ethical Hacking (Theory)

Maximum Marks: 50

Minimum Marks: 20

Time: 3 hours

Note: Examiner will be required to set Nine Questions in all. First Question will be compulsory, consisting of four (short-answer type) questions covering the entire syllabus. In addition to that eight more questions will be set, two questions from each Unit. A candidate will be required to answer five questions in all, selecting one question from each unit in addition to compulsory Question No. 1. All questions will carry equal marks.

UNIT I

Ethical Hacking Overview & Footprinting:

Understanding the importance of security, Concept of ethical hacking. Threat, Attack, Vulnerabilities, Exploit. Phases involved in hacking

Footprinting - Introduction to foot printing, Understanding the information gathering methodology of the hackers, Tools used for the reconnaissance phase.

UNIT II

Port Scanning & System Hacking:

Port Scanning - Introduction, using port scanning tools, ping sweeps, Scripting Enumeration-Introduction, Enumerating windows OS & Linux OS

Aspect of remote password guessing, Role of eavesdropping, Various methods of password cracking, Keystroke Loggers, Understanding Sniffers, Comprehending Active and Passive Sniffing, ARP Spoofing and Redirection, DNS and IP Sniffing, HTTPS Sniffing.

UNIT III

Hacking Web Services & Session Hijacking:

Web application vulnerabilities, application coding errors, SQL injection into Back-end Databases, cross-site scripting, cross-site request forging, authentication bypass, web services and related flaws, protective http headers Understanding Session Hijacking, Phases involved in Session Hijacking, Types of Session Hijacking and Session Hijacking Tools

UNIT IV

Hacking Wireless Networks & Cryptography:

Introduction to 802.11, Role of WEP, Cracking WEP Keys, Sniffing Traffic, and Wireless DOS attacks, WLAN Scanners, WLAN Sniffers, Hacking Tools, and Securing Wireless Networks. Cryptography and its types.

Text books:

1. Patrick Engebretson, The Basics of Hacking and Penetration Testing, Elsevier, 2013.
2. Network Security and Ethical Hacking, Rajat Khare, Luniver Press, 2006.

REFERENCES:

1. Kimberly Graves, "Certified Ethical Hacker", Wiley India Pvt Ltd, 2010

2. Michael T. Simpson, "Hands-on Ethical Hacking & Network Defense", Course Technology, 2010
3. Ramachandran V, BackTrack
4. Wireless Penetration Testing Beginner's Guide (3rd ed.). Packt Publishing, 2011
5. Thomas Mathew, "Ethical Hacking", OSB publishers, 2003

Paper Code:
Nomenclature: Lab based on Ethical Hacking (Practical)

M.M: 50
Time: 3 hours

Distribution of Marks
Experiment: 25
Practical Work Book: 15
Viva Voce: 10

Course Outcome:

After learning the course the students should be able to:

- i. Understand the basics of the ethical hacking.
- ii. Perform the foot printing and scanning.
- iii. Perform the techniques for system hacking.
- iv. Characterize the malware and their attacks, detect and prevent them.
- v. Determine the signature of different attacks and prevent them.
- vi. Detect and prevent the security attacks in different environments

List of Experiments:

1. List the tools for Ethical Hacking.
2. Implement Footprinting and Reconnaissance using tools 3d Traceroute, Alchemy Eye, DNS Tools and Network Solution Whois.
3. Implement Network scanning using tools Advanced Port Scanner, Colasoft Ping Tool, Hide Your IP Address, Nessus and Nmap.
4. Implement Enumeration using tools Default Password List, Default Password List, OpUtil Network Monitoring Tool and OpUtil Network Monitoring Tool.
5. Implement system hacking using tools Actual spy, Alchemy Remote Executor, Armor Tool and FSecureBlackLight.
6. Implement Trojan and Backdoors using tools Absolute Startup Manager, Absolute Startup Manager, Netwrix Services Monitor and StartEd Lite.
7. Implement Viruses and Worms using tools Anubis Analyzing UnknownBinaries, Filterbit, Sunbelt CWSandbox and ThreatExpert.
8. Implement sniffers using tools ColasoftCapsa Network Analyzer, EffeTech HTTP Sniffer, Packet Sniffer and PRTG Network Monitor.

Major Equipment's: - Latest PCs with related software

List of Open Source Software/learning website:

- <https://hackaday.com/>
- <https://breakthesecurity.cysecurity.org/>
- <https://www.eccouncil.org/programs/certified-ethical-hacker-ceh/>
- <https://www.hackthissite.org/>

Paper Code:
Nomenclature: Project based on Ethical Hacking (Viva)

M.M: 50
Time: 3 hrs

Distribution of Marks
Viva Voce: 50

Course Outcomes:

After learning the course the students should be able to:

1. Evaluate the countermeasures of advanced hacking techniques.
2. Perform techniques used to break into an insecure web application and identify relevant countermeasures.
3. Demonstrate an advanced security topic with an independent project.

Note:

Each student shall be required to undertake a real life project problem under the supervision of a faculty. The project may be development assignment in a real environment on below given areas or any other area related to ethical hacking.

List of Projects:

- i. Web Server Fingerprinting tool
- ii. IP Spoofing attack demonstration
- iii. ARP Spoofing attack and demonstration
- iv. ICMP Flood attack simulation
- v. Mac flooding attack demonstration and mitigation
- vi. ARP cache poisoning and man in the middle attack
- vii. Syn flood tool
- viii. Web Exploitation and Privilege Escalation
- ix. Wireless Exploitation
- x. Web/Network Sniffing
- xi. Network Spoofing Attacks
- xii. Web Back-doors
- xiii. Unauthorized Access to Resources etc.

Report-on Project work will consist of the following:

1. Index
2. A duly signed certificate from supervisor certifying that the candidate has done the project under his supervision and the work done in the project is the result of candidate's own effort.
3. A certificate from college principal certifying that the candidate is the student of this college and he has attended the college IT Labs for required no of days.
4. Acknowledgement duly signed by student.
5. Introduction of Topic.
6. Objective of the project.
7. Definition of the problem.
8. System documentation and flowchart.

9. Listing of the software development along with sample inputs inputs and output.
10. Conclusions.
11. Advantages and disadvantages of the software developed.
12. Future scope of the project.
13. References.

List of students enrolled

Government P.G. College, Ambala Cantt

Course Name: Ethical Hacking

Enrollment List

(2023-24)

Sr. No.	Student Name	Collage Roll No.	University Roll No.	Father's Name
1.	Lakshita	1210021011021	210006742	Sh. Lalit Sehgal
2.	Harsh	1210021011026	210006705	Sh. Amrik Singh
3.	Mukesh	1210021011002	210006751	Sh. Dharamveer
4.	Raman	1210021011044	210006760	Sh. Dharam Singh
5.	Rahul	1210021011045	210006709	Sh. Hari Lal
6.	Nitan	1210021011025	210006756	Sh. Satish Kumar
7.	Yuvraj	1210021011056	210006733	Sh. Pardeep Kumar
8.	Pooja Saini	1210021011031	210006731	Sh. Naresh Kumar
9.	Kashish	1210021011077	210006769	Sh. Manoj Dua
10.	Varsha Rani	1210021011047	210006771	Sh. Shish Pal
11.	Yensee	1210821011016	210009005	Sh. Shyam Kumar
12.	Kushal Kumar	1210021011065	210006752	Sh. Sanjay Kumar
13.	Shivam Kumar	1210021011049	210006763	Sh. Parmod Kumar
14.	Ankit	1210021011080	210006707	Sh. Baljeet Kumar
15.	Khushi	1210021011070	210006732	Sh. Rajesh Kumar
16.	Megha	1210021011054	210006728	Sh. Sanjeev Kumar
17.	Deepak	1210021011082	210006703	Sh. Naresh Kumar
18.	Dheeraj	1210021011069	210006766	Sh. Lekhraj
19.	Gurpreet Singh	1210021011014	210006745	Sh. Kulwinder Singh
20.	Ashish	1210021011068	210006749	Sh. Kuldeep Singh
21.	Yogesh	1210021011084	210006762	Sh. Hukam Chand
22.	Karan Sharma	1210021011060	210006719	Sh. Om Kumar
23.	Anuj	1210021011046	210006739	Sh. Angrej Pal
24.	Harsh	1210021011007	210006746	Sh. Harish Khurana
25.	Yogesh	1210021011024	210006759	Sh. Naresh Chand
26.	Kunalika	1210021011048	210006753	Sh. Sanjeev Kumar
27.	Bhavya	1210021011071	210006743	Sh. Rajnesh Puri
28.	Shivani	1210021011013	210006711	Sh. Tarsem Singh
29.	Mehak	1210021011015	210006724	Sh. Vipin Kumar
30.	Ritik	1210021011008	210006718	Sh. Ashwani
31.	Harsh	1210021011039	210006716	Sh. Anil Kumar
32.	Akshit	1210021011042	210006710	Sh. Vinod Kumar
33.	Vansh Mittal	1210021011027	210006747	Sh. Anil Kumar
34.	Simardeep Kaur	1210021011032	210006765	Sh. Dilshad Singh
35.	Komal	1210021011020	210006712	Sh. Suresh Pal
36.	Sivani	1210021011078	210006764	Sh. Pappu Prajapati
37.	Kajal	1210021011006	120017901	Sh. Rajesh Kumar
38.	Siya	1210021011010	210006722	Sh. Sham Lal

39.	Neeru	1210021011038	210006728	Sh. Satish Kumar
40.	Shammi	1210021011057	210006734	Sh. Jagdish Sethi
41.	Anmol Singh	1210021011072	210006775	

Prinny

(Principal)

Government PG College

Ambala Cantt

Attendance Record- Ethical Hacking

Attendance Register of Ethical Hacking Certification Course

for the month of Nov 2023 - April 2024

Royal Stationery Mart, A/Cantl. Ph.: 0171-2532664

[illegible]

Attendance Register of Physical Training Certificate Course

for the month of

S.No.	NAME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Remarks
46	Anug	P	P	A	P	P	P	A	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
67	Harsh	A	A	A	A	A	P	P	P	P	A	A	A	P	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
24	Yogesh	A	A	A	A	A	A	A	A	A	A	A	A	P	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
48	Kishorika	A	A	A	A	A	A	P	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
71	Bhavya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
13	Shivani	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
15	Mehar	P	A	P	P	P	P	P	P	P	A	A	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
08	Ritik	P	P	P	A	P	A	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
39	Harsh	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
42	Akshat	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
27	Vaish Mittal	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
32	Simadep Kumar	A	P	P	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
20	Komal	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
78	Sivani	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
06	Kajal	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
10	Siya	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
38	Neha	A	A	A	P	P	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
57	Shawmi	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
72	Anmol Salu	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
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Dr. Arun

Dr. Arun

Question Paper- Ethical Hacking

Add-on course Ethical Hacking

Time: Two Hours

Maximum Marks: 50

Note: Attempt any **Five** questions in all. All questions carry equal marks.

Date: 20/05/2024

-
1. (a) Which are some of the most prevalent kinds of Cyber threats, and how do they endanger networks and computer systems? 5 Marks
(b) What constitutes ethical hacking and what responsibilities fall under various types of ethical hackers? 5 Marks
 2. What is foot printing and how does it work? Also Explain Types of Foot Printing. 10 Marks
 3. Explain Types of Phases of Ethical Hacking. 10 Marks
 4. What is Port Scanning and discuss different types of tools and techniques used for port Technique? 10 Marks
 5. Explain any two terms from the following: 5,5 Marks
 - (a) Eavesdropping
 - (b) Sniffing
 - (c) ARP Spoofing
 6. What is Cross-site Scripting (XSS)? How to prevent XSS attacks? 10 Marks
 7. What stages go into a session hijacking attack, and what are some of the tools that might be employed to execute one? 10 Marks
 8. What are some typical hacking tools, and how can wireless network operators protect their networks from them? 10 Marks
 9. What is cryptography? Explain its types? 10 Marks

Result – Ethical Hacking 2023-24

Government P.G. College, Ambala Cantt
Course Name: Ethical Hacking
Enrollment List
(2023-24)

Sr. No.	Student Name	Collage Roll No.	Theory Marks	Practical Marks	Total Marks	Grade
1.	Lakshita	1210021011021	40	36	76	A
2.	Harsh	1210021011026	--	--	--	--
3.	Mukesh	1210021011002	38	37	75	A
4.	Raman	1210021011044	47	43	90	A+
5.	Rahul	1210021011045	--	--	--	--
6.	Nitan	1210021011025	--	--	--	--
7.	Yuvraj	1210021011056	30	30	60	B
8.	Pooja Saini	1210021011031	--	--	--	--
9.	Kashish	1210021011077	41	39	80	B
10.	Varsha Rani	1210021011047	44	46	90	A+
11.	Yensee	1210821011016	45	46	91	A+
12.	Kushal Kumar	1210021011065	46	45	91	A+
13.	Shivam Kumar	1210021011049	--	--	--	--
14.	Ankit	1210021011080	42	39	81	A
15.	Khushi	1210021011070	--	--	--	--
16.	Megha	1210021011054	45	46	91	A+
17.	Deepak	1210021011082	41	39	80	A
18.	Dheeraj	1210021011069	47	44	91	A+
19.	Gurpreet Singh	1210021011014	39	39	78	A
20.	Ashish	1210021011068	47	43	90	A+
21.	Yogesh	1210021011084	42	40	82	A
22.	Karan Sharma	1210021011060	30	31	61	B
23.	Anuj	1210021011046	40	37	77	A
24.	Harsh	1210021011007	--	--	--	--
25.	Yogesh	1210021011024	42	40	82	A
26.	Kunalika	1210021011048	--	--	--	--
27.	Bhavya	1210021011071	39	40	79	A
28.	Shivani	1210021011013	43	47	90	A+
29.	Mehak	1210021011015	46	45	91	A+
30.	Ritik	1210021011008	44	46	90	A+
31.	Harsh	1210021011039	47	45	92	A+
32.	Akshit	1210021011042	--	--	--	--
33.	Vansh Mittal	1210021011027	30	32	62	B
34.	Simardeep Kaur	1210021011032	--	--	--	--
35.	Komal	1210021011020	45	45	90	A+
36.	Sivani	1210021011078	38	42	80	A

37.	Kajal	1210021011006	38	37	75	A
38.	Siya	1210021011010	40	36	76	A
39.	Neeru	1210021011038	--	--	--	--
40.	Shammi	1210021011057	--	--	--	--
41.	Anmol Singh	1210021011072	36	41	77	A


 (Principal)

Government PG College
 Ambala Cantt

Course Outcome- Ethical Hacking

Certificate Course in Ethical Hacking

Program Duration: 60 hours

Scheme of Course

Paper No.	Title of Paper	Maximum Marks	Passing Marks	Duration of Exam
	Ethical Hacking(Theory)	50	20	3 hours
	Lab based on Ethical Hacking	50	20	3 hours
	Project based on Ethical Hacking	50	20	3 hours

Program Outcome:

At the end of the program student will be able to:

- Learn various aspects of Ethical Hacking like network security, web security, OS and Database Security.
- Apply advanced techniques which are used by both black and white hats.
- Understand methodologies and provide better security and defend severe data breaches.
- Develop the art of identifying and securing potential threats to digital assets like websites, server, networks, operating system and more of an organization.

Job Roles in Government Sector, IT Firm & Private Organizations:


- Network Security Administrator
- Chief Information Security Officer
- Application Security Tester
- Chief Application Security Officer
- Network Security System Manager
- Security Investigator
- Network Security Engineer
- Systems/Applications Security Executive
- Web security Administrator/Manager
- Security Auditor
- Ethical Hacker
- Data security specialist
- Chief Information Security Officer
- Computer Forensics Investigator
- IT Security Administrator/Consultant/ Manager
- Security Certified Programmer
- Forensics Investigator
- Security consultant

Objectives:

1. To understand and analyze Information security threats & counter measures.
2. To perform security auditing & testing
3. To understand issues relating to ethical hacking
4. To study & employ network defense measures
5. To understand penetration and security testing issues

Sample of Certificate given to students after completion of Course

DEPARTMENT OF HIGHER EDUCATION, HARYANA, PANCHKULA



VALUE ADDED COURSE

Session 20 23... 20 24.


Certificate


This is certified that Mr./Miss KOMAL

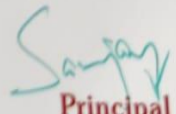
of Class BCA-IIIrd Year Roll No. 1210021011020 has successfully completed

30 hours certificate course in Ethical Hacking conducted by Dept. of comp. sci.

Govt. P.G. College Ambala Cantt during his / her degree program with A+ grade.*


Teacher In Charge


Coordinator


Principal

* Above 90% Grade A+, 75% to 90% Grade A, 60% to 74.99% Grade B, 45% to 59.99% Grade C, Below 45% Unsuccessful

