

ਸ਼ਹੀਦ ਮੇਜਰ ਹਰਮਿੰਦਰਪਾਲ ਸਿੰਘ (ਸ਼ੈ.ਚ.) ਸਰਕਾਰੀ ਕਾਲਜ, ਸਾਹਿਬਜ਼ਾਦਾ ਅਜੀਤ ਸਿੰਘ ਨਗਰ

SHAHEED MAJOR HARMINDERPAL SINGH (Shaurya Chakra) GOVERNMENT COLLEGE, SAHIBZADA AJIT SINGH NAGAR

ਫੋਸ-6, ਸਾਹਿਬਜ਼ਾਦਾ ਅਜੀਤ ਸਿੰਘ ਨਗਰ (ਮੋਹਾਲੀ)-160056

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TIME TABLE B.A. SEMESTER FIRST (SESSION 2023-24)

ZERO Remedial 8:15 - 9:00	1 9:00-9:45	2 9:45-10:30	3 10:30-11:15	4 11:15-12:00	5 12:00-12:45	6 12:45-1:30	7 1:30-2:15	8 2:15-3:00	9 3:00-3:45	10 3:45-4:30	ZERO Remedial 8:15 - 9:00
	H. SCIENCE (1-6) Sec-A Dept. of H. Science Dr. Preetinder Kaur Room No. 10 Mrs. Sukhvinder Kaur (1-6) Sec-B Room No. 110	GEOGRAPHY (1-6) Dept. Room Prof. Sharanjeet Singh	ENGLISH (1-6) Sec-A Room no-101 Dr. Reetinder Kaur	HISTORY(1-6) Sec-A Hall no-2 Prof. Nishtha	FINE ARTS (1-3) Theory Dept. Room Prof. Kirandeep Kaur Kalsi	PUNJABI (1-6) Sec-A Room no 115 Prof. Ghansham Singh	ENGLISH (Elect) (1-6) Room No-104 Prof. Nandini	Economics (1-3) Room NO.			
	PUBLIC ADMINISTRATION (1-6) Prof. Rohit Barach Old GCMSIP	COMPUTER SCIENCE (1-6) COMPUTER LAB Mr. Guljeet Singh	ENGLISH (1-6) Sec-B Room no-102 Prof. Rashmi	HISTORY(1-6) Sec-B Room no-101	ECONOMICS (1-6) Room No. 105 Mrs. Ravinder Kaur	PUNJABI (1-5) Sec-B Room no-102 Prof. Pushpinder Kaur	PUNJABI (Elect) (1-6) Room no-106 Dr. Gurpreet Singh				
	PHY EDUCATION (1-6) Sec-A Stadium Room Mrs. Simarpreet	MUSIC VOCAL (1-3) Theory (4-6) Practical Dept. Room	ENGLISH (1-6) Sec-C Room no-105 Dr. Inderjeet Kaur		SOCIOLOGY (1-6) Sec-A Room no-110 Dr. Prabhjot Kaur Gill	PUNJABI (1-6) Sec-C Room no-105 Mr. Parminderpal Singh	HINDI (Elect) (1-5) Room no- 105 Dr. Saranjeet Kaur				
	PHY EDUCATION (1-6) Sec-B Room no-115 Mr. Hanish		ENGLISH (1-6) Sec-D Room no-106 Prof. Nandini	PSYCHOLOGY (1-6) Dept. Room Mrs. Tejinder Kaur	SOCIOLOGY (1-6) sec-B Room no-101 Prof. Monica	Mudra Gyan (3-4) Old GCMSIP Dr. Amandeep Kaur	POL SCIENCE (1-6) Room no-107 Mr. Sukhwinder Singh				
	MUSIC (I) (1-3) Theory (4-6) Practical Music Dept. room Dr. Manoj		ENGLISH (1-6) Sec-E Room no. 107 Prof. Gurpreet Kaur								
MATHS (1-3) Hall no-1 Mr. Inderjeet Singh	MATHS (1-6) Hall No-3 Dr. Armitpal Singh		ENGLISH (1-6) Sec-F Room no. 110 Prof. Aarti Bhakhshi	MATHS (1-6) Hall No-3							

TIME TABLE INCHARGE

PRINCIPAL

TIME TABLE B.A. SEMESTER THIRD (SESSION 2023-24)

	1 9:00-9:45	2 9:45-10:30	3 10:30-11:15	4 11:15-12:00	5 12:00-12:45	6 12:45-1:30	7 1:30-2:15	8 2:15-3:00	9 3:00-3:45	10 3:45-4:30
ZERO Remedial 8:15 - 9:00										
HISTORY (1-6) Sec-A Hall no-2 Prof. Nishtha	ECONOMICS (1-6) Room No 115 Mrs. Ravinder Kaur	GEOGRAPHY (1-6) Dep. Room Prof. Sharanjeet Singh	ENGLISH (1-6) Sec-A Room no-102 Prof. Jaspreet Kaur	PUNJABI (1-6) Sec-A Room no 102 Prof. Ghansham Singh	ENGLISH(Elect) (1-5) Room no-104 Prof. Jaspreet Kaur	PUBLIC ADMINISTRATION (1-6) Old GCMSIP Prof. Rohit Barach				
HISTORY (1-6) Sec-B R No-101	SOCIOLOGY (1-6) Sec-A Room no-110 Dr. Prabhjot Kaur Gill	MUSIC VOCAL (1-3) Theory Deptt. Room	ENGLISH (1-6) Sec-B Room no-105 Dr. Inderjeet Kaur	PUNJABI (1-6) Sec-B Room no-106 Mr. Parminderpal Singh	PUNJABI (Elect) (1-6) Room no-110 Dr. Kulwinder Kaur	H.SCIENCE (1-6) Dept. of H.Science Room No.10 Prof. Gurjeet Kaur	ECO (Hons.) (1-6) Room NO.202 Mrs. Ravinder Kaur			
PSYCHOLOGY (1-6) Dept. of Psy. Dr. Vipin Chaudhary	SOCIOLOGY (1-6) sec-B Room no-101 Prof. Monica	COMPUTER SCI.(1-4) Comp. Lab Mr. Guljeet Singh	ENGLISH (1-6) Sec-C Room no-107 Prof. Gurpreet Kaur	PUNJABI (1-6) Sec-C Room no-107 Dr. Gurpreet Singh	HINDI (Elect) (1-6) Room no-106 Dr. Sarabjeet Kaur	PHY. EDUCATION (1-5) Room no-102 Mr. Hanish	SOCIOLOGY (Hons.) (1-3) Mrs. Monica (4-6) Dr. Prabhjot Kaur Room no-110			
MATHS (1-6) Hall no-1 Dr. Harjinder Singh	FINE ARTS (1-3) Theory Dept. Room Prof. Gayatri Singh		ENGLISH (1-6) Sec-D Room no-106 Prof. Aarti Bakhshi		POL. SCIENCE (1-6) Room no-107 Mr. Sukhwinder Singh	MUSIC (I) (1-3) Theory Music Dept. room Dr. Manoj	PSYCHOLOGY (Hons.) (1-6) Dept. Room Mrs. Tejinder Kaur			
						MATHS (1-6) Hall no-3 Mr. Inderjeet Singh	HISTORY (Hons.) (1-5) Prof. Nishtha Room No-107			
						Mudra Gyan (1-2) Room NO.115 Dr. Amandeep Kaur				

TIME TABLE INCHARGE

PRINCIPAL

TIME TABLE B.A. SEMESTER FIFTH (SESSION 2023-24)

ZERO Remedial 8:15 - 9:00	1 9:00-9:45	2 9:45-10:30	3 10:30-11:15	4 11:15-12:00	5 12:00-12:45	6 12:45-1:30	7 1:30-2:15	8 2:15-3:00	9 3:00-3:45	10 3:45-4:30
	PUNJABI (1-6) Sec-A Room no 102 Prof Pushpinder Kaur	ENGLISH (1-6) Sec-A Room no-105 Prof.Arvind Kaur	ENGLISH(Elect) (1-6) Room no-103 Prof. Arvind Kaur	PUBLIC ADMINISTRATION (1-6) Old GCMSIP Prof.Rohit Barach	GEOGRAPHY (1-6) Dep. Room Dr.Jaspal Singh	HISTORY (1-6) Sec-A Hall no.2 Prof Nishiha	ECONOMICS (1-6) Hall No-2 Mrs. Ravinder Kaur	ECONOMICS (Hons.) (1-6) Hall No-2		
	PUNJABI (1-6) Sec-B Room no-105 Mrs. Sarabjit Kaur	ENGLISH (1-6) Sec-B Room no-106 Dr. Reetinder Kaur	PUNJABI (Elect) (1-6) PG Punjabi Dept. Dr.Amandeep Kaur	H.SCIENCE (1-6) Dept. of H.Sci. Room No. 10 Prof.Gunjeet Kaur.	MUSIC VOCAL (1-3) Theory Deptl.Room	HISTORY (1-6) Sec-B R No-101	SOCIOLOGY (1-6) Sec-A Room no-110 Dr. Prabhjot Kaur Gill	PSYCHOLOGY (Hons.) (1-6) Dept. Room Dr. Vipin		
	PUNJABI (1-6) Sec-C Room no-106 Dr.Kulwinder Kaur	ENGLISH (1-6) Sec-C Room no-107 Prof. Jaspreet Kaur	HINDI (Elect) (1-6) Room no-115 Prof. Sarabjeet Kaur	PHY.EDUCATION (1-6) Room no-110 Mrs.Simarpreet	COMPUTER SCI. (1-6) Comp. Lab Mr.Guljeet Singh	PSYCHOLOGY (1-6) Dept. of Psy. Mrs.Tejiinder Kaur	SOCIOLOGY (1-6) sec-B Room no-101 Prof.Monica	ECONOMICS (Gen.) (4-6) Hall No-2		
	Mudra Gyan (5-6) Room no-107 Dr.Amandeep Kaur	ENGLISH (1-6) Sec-D Hall No.2 Prof. Rashmi Prabhakar	POL. SCIENCE (1-6) Hall no.2 Mr. Sukhwinder Singh	MUSIC (I) (1-3) Theory Music Dept. room Dr. Manoj		MATHS (1-6) Hall no-1 Mr. Inderjeet Singh	FINE ARTS (1-3) Theory Dept. Room Prof.Kirandeep Kaur Kalsi			
		ENGLISH (1-6) Sec-E Room No. 102 Prof.Nandini		ECONOMICS (Hons.) (1-3) Room No-202			MATHS (1-3) Hall no-1 Dr. Harjinder Singh			

TIME TABLE INCHARGE

PRINCIPAL

S.M.H.SINGH GOVT. COLLEGE SAHIBZADA AJIT SINGH NAGAR

DEPT. OF SCIENCE B.Sc.-II-III

TIME TABLE SESSION-2023-24

Periods/ Class	1	2	3	4	5	6	7	8	9	10	
B.Sc.-I	9.00 Maths (1-6) AP Hall No-III Botany (1-6) S Botany lab/Room	9.45 Chem (1-2)AT (3-4) (5-6) Hall No-III	10.00 Physics (1-3) (4-6) M Hall No-III	11.15 Maths (1-6) Hall No-III Botany (1-3) S Botany Lab Zoology (4)S,K (5.6) Zoology Lab	12.00 Phi. (1-6) Hall No-III	12.45 Chemistry (1-3) Hall No-III Computer (1-3) GS Comp. Lab Physics (4-6)S Hall No-III	1.30 PRACTICALS Chemistry N & M (1)(2)/AT Botany (3-4) S Zoo. (5) S.K, (6) Physics N & C.A (5) M (6) S Computer(3-4) GS	2.15	3.00	3.45 Math (1-3) IS Hall No-III	
B.Sc.-II	Maths (1-6)HS Hall No-I Zool. (2,3,4,5) SK Zoo. Lab/ Room (1.6) Zoo. Lab	Phy. (1-3) (4-6) M Hall.No-I Bot (1.2,6)MK Botany lab (3,4,5)S Zoo. Lab	Chem (1-2) (3-4)AT (5-6) Hall No-I Comp. (1-6) GS Comp. Lab	PRACTICALS Botany(5) S,(6) MK Zoo. (3)SK, (4) Physics N(1-2) CA(3-4) M Chem N (3-4)AT M (1-2) Computer (1-2)GS		Math (1-3) IS (4-6) Hall No-III Botany (1-3) MK Bot. Lab Zoo (6) SK Zoo. Room (4.5) Zoo. Room	Eng (1-6) Hall No-III	Punjabi (1-6) Hall No-III	Chemistry (1-3) Chem. Lab Physics (4-6) S Phy. Lab Comp. (1-3) GS Comp. Lab		
B.Sc.-III	PRACTICALS Botany(3-4)MK Zoo.(1) SK Zoo.(2)			Bot (1-5)M,K (6) S Bot.Lab/Room	Chem (1-2) (3-4) (5-6)AT Hall No-I Comp (1-6) GS Comp. Lab	Math (1-6) IS Hall No-I Zool. (1,2,4,5,6) S.K Zoo. Lab (3) Zoo. Room	Math (1-3) HS (4-6) Hall No-I Botany (4-6) M,K Bot. Lab Zool. (1-3) Zoo. Lab	Chem (4-6) Hall No-1 Physics (1-3)M Hall No-1 Comp (4-6) GS Comp. Lab	Punjabi (1-6) Hall No-1	Math (1-3) Hall No-1	
	PRACTICALS Phy N(5-6) CA(1-2)M Chem N (3-4), M (5-6)AT Computer(5-6) GS										

Principal
Hogart Singh

**GCMSIP Teacher wise
Work load (Jan 2023 to June 2023)**

Name	I (9:00 to 9.45 am)	II (9.45am to 10.30am)	III 10:30am to 11.15 am	IV 11:15 to 12.00	V 12:00 to 12.45pm	VI 12:45 pm to 1.30 pm	VII 1:30pm to 2.15pm	VIII 2:15pm to 3.00pm	TOTAL
Mr. BS Sandhu	BCA Sem-VI JAVA-LAB (4-6)	BCA Sem-VI JAVA-LAB (4-6) PGDCA DBMS(3)	MSc(IT) Sem-IV (1-6)		PGDCA DBMS(1,2,5) MSc (IT) Sem-IV Linux-Lab(3,4)	MSc (IT) Sem-IV Linux-Lab(3,4)	PGDCA DBMS(5,6) MSc (IT) Sem-IV Linux-Lab(3,4)	MSc (IT) Sem-IV Linux-Lab(3,4)	26
Mr BS Saini		BCA Sem-VI OS(1-3) MSc(IT) Sem-II Python(5-6)	MSc(IT) Sem-II Python(1-4)		BCA Sem-IV Math Lab(1-3) BCA Sem-VI OS(4-6)	BCA Sem-IV Math Lab(1-3) MSc(IT) Sem-II Python-Lab(5,6)	MSc(IT) Sem-II Python-Lab(1,5,6)	MSc(IT) Sem-II Python-Lab(1,5,6)	26
Mrs. Navneet K.	MSc(IT) DBMS-Lab(1-4)	MSc(IT) DBMS-Lab(1-4)	BCA Sem-I Data Structure (1-6)		MSc(IT) DBMS(1-6)	BCA Sem-I Data Structure Lab(4-5)	BCA Sem-I Data Structure Lab(4-5)	BCA Sem-I Data Structure Lab(4-5)	26
Mr. Ashish Kumar		MSc Sem-IV CG (1-6)	BCA Sem-IV DBMS-Lab(4,5,6)	BCA Sem-IV DBMS Theory(1,2,3) Lab(4,5,6)	MSc Sem-IV CG-Lab (1-2) BCA Sem-IV DBMS Theory(4,5,6)	MSc Sem-IV CG-Lab (1-2)	MSc Sem-IV CG-Lab (1-2)	MSc Sem-IV CG-Lab (1-2)	26
Ms Deepinder Kaur	BCA-Sem-IV CN(1-3)		BCA Sem-VI ASP.Net Lab (1-3) MSc(IT) Sem-II OS(5,6)	BCA Sem-VI ASP.Net Lab(1-3) Theory(4-6)	BCA Sem-VI ASP.Net (1-3)	BCA-Sem-IV CN(4,5,6) MSc(IT) Sem-II OS(1,2)	MSc(IT) Sem-II OS(3,4)		24
Mr. Amandeep Singh	MSc(IT) Sem-IV AI(1-6)	PGDCA WebTech(1,2,4)	PGDCA WebTech Lab(1-4)	PGDCA WebTech Lab(1-4)	PGDCA WebTech(3,4,6)	BCA Sem-VI SE(1-6)			26

B.S. Saini

Mrs. Parvinder Kaur	BCA Sem-VI Ecom(1-3) BCA Sem-IV MIS(4-6)	BCA Sem-II DE(1-6)	BCA Sem-IV MIS(1-3) BCA Sem-VI Ecom(4-6)	MSc(IT) Sem-II COA(1-6)					24
Mr. Gurpreet Singh	PGDCA Python(1-4) Lab(5-6)	PGDCA Python-Lab(5-6)	PGDCA Python-Lab(5-6)	MSc(IT) Sem-IV Research(1-4) PGDCA Python-Lab(5-6)	MSc(IT) Sem-IV Research(5,6)	PGDCA Python(5-6)	BCA Sem-II Drug Abuse(1-3,6)		24

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Mr. Ashish Kumar	CN BCA Sem-IV (1-4)	WebTech-Lab-II PGDCA Sem-II (5-6)	WebTech-Lab-II PGDCA Sem-II (1-2)	WebTech-Lab-II PGDCA Sem-II (1-2)	CN BCA Sem-IV (5-6)	BCA-VI SE (1-6)	Web-Tech PGDCA Sem-II (1-2) Room No-4	Proctorial Duty	32	Mon-Sat 9:00 am to 2:30 pm
	Room No-03 WebTech-Lab-II PGDCA Sem-II (5-6)			Room No-1 Web-Tech PGDCA Sem-II (3-6)	Room No-03	Room No:1				
Ms Deepinder Kaur	OS BCA Sem-VI (1-6) Room No-1	Proctorial Duty	ADA MSc-II (1-2) Room-1 ADA-Lab-11 MSc-Sem-IV (3-6)	ADA-Lab-11 MSc-Sem-IV (3-6)	ADA MSc-II (3-6) Room-3	MIS BCA Sem-IV (1-6) Room No-3			32	Mon-Sat 9:00 am to 2:30 pm
	Proctorial Duty									
Mr. Amandeep Singh	OS	RDBMS M.Sc-Sem-II (1-6) Room No-4	Asp.Net BCA-VI Lab-1 (1-3)	Asp.Net BCA-VI Lab-1 (1-3)	DBMS-Lab II M.Sc-Sem-II (3-6)	DBMS-Lab II M.Sc-Sem-II (3-6)	Asp.Net BCA-VI (1-6) Room-1		32	Mon-Sat 9:00 am to 2:30 pm
	Proctorial Duty									
Mrs. Parvinder Kaur	M.Sc-Sem-II (1-6) Room No-4	BCA Sem-II A (1-101) Room No-101		BCA Sem-II B (1-6) Room No-102	Proctorial Duty	BCA Sem-IIA (4-6)	BCA Sem-IIA (4-6)		30	9:00 am to 2:30 pm
	Python-Lab II	Python-Lab II	Project-Lab BCA VI (4-6) Lab-1	Project-Lab BCA VI (4-6) Lab-1		Python PGDCA Sem-II (1-6) Room No-4			30	Mon-Sat 9:00 am to 2:30 pm
Mr. Gurpreet Singh	PGDCA Sem-II (1-4) Project-Lab II MSc-Sem-IV (5-6)	PGDCA Sem-II (1-4) Project-Lab II MSc-Sem-IV (5-6)					Proctorial Duty		30	9:00 am to 2:30 pm

Proctorial Duty
 ११/११/११
 ए.पी.ए.सी.सी.सी.सी., गवर्नरी बरक,
 गोरखपुरा कमीने सिव्हा नारायण

ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ
(1961 ਦੇ ਪੰਜਾਬ ਐਕਟ ਨੰ. 35 ਤਹਿਤ ਸਥਾਪਿਤ)

ਯੂਨੀਵਰਸਿਟੀ ਨਾਲ ਸਬੰਧਤ ਸਮੂਹ ਕਾਲਜਾਂ ਦੇ ਪ੍ਰਿੰਸੀਪਲ/ਡਾਇਰੈਕਟਰ ਸਾਹਿਬਾਨ ਨੂੰ

(ਬੀ.ਐਡ./ਲਾਅ ਅਤੇ ਹੋਰ ਅਜਿਹੇ ਕੋਰਸਾਂ ਨੂੰ ਛੱਡ ਕੇ ਜਿਨ੍ਹਾਂ ਦੇ ਦਾਖਲੇ ਜ਼ਿਆਦਾ ਐਂਟਰੈਂਸ ਟੈਸਟ ਵਾਲੀ ਪੰਜਾਬ ਸਰਕਾਰ/ਸਿੱਟਰਲ ਏਜੰਸੀਆਂ ਵੱਲੋਂ ਕਰਵਾਏ ਜਾਂਦੇ ਹਨ) ਵਿਖਾ : ਸੈਸ਼ਨ 2023-24 ਦੌਰਾਨ ਯੂਨੀਵਰਸਿਟੀ ਨਾਲ ਸਬੰਧਤ ਸਮੂਹ ਕਾਲਜਾਂ ਲਈ ਗਰਮੀ-ਸਰਦੀ ਦੀਆਂ ਛੁੱਟੀਆਂ ਅਤੇ ਦਾਖਲਾ ਮਿਤੀਆਂ ਦਾ ਸ਼ਿਡਿਊਲ।

ਸ਼੍ਰੀਮਾਨ/ਸ਼੍ਰੀਮਤੀ ਜੀ, ਉਪਰੋਕਤ ਵਿਖੇ ਦੇ ਸਬੰਧ ਵਿੱਚ ਆਪ ਜੀ ਨੂੰ ਹੁਚਿਤ ਕੀਤਾ ਜਾਂਦਾ ਹੈ ਕਿ ਵਾਈਸ-ਚਾਂਸਲਰ ਸਾਹਿਬ ਵੱਲੋਂ ਅਕਾਦਮਿਕ ਕੌਂਸਲ ਦੀ ਪ੍ਰਵਾਨਗੀ ਦੀ ਆਸ ਵਿੱਚ ਸੈਸ਼ਨ 2023-24 ਦੌਰਾਨ ਯੂਨੀਵਰਸਿਟੀ ਨਾਲ ਸਬੰਧਤ ਸਮੂਹ ਕਾਲਜਾਂ ਲਈ ਗਰਮੀ-ਸਰਦੀ ਦੀਆਂ ਛੁੱਟੀਆਂ ਅਤੇ ਦਾਖਲਾ ਮਿਤੀਆਂ ਦਾ ਸ਼ਿਡਿਊਲ ਨਿਮਨਲਿਖਤ ਅਨੁਸਾਰ ਨਿਰਧਾਰਤ ਕਰਨ ਦੀ ਪ੍ਰਵਾਨਗੀ ਦਿੱਤੀ ਹੈ:

ਗਰਮੀ-ਸਰਦੀ ਦੀਆਂ ਛੁੱਟੀਆਂ:

- (1) ਗਰਮੀ ਦੀਆਂ ਛੁੱਟੀਆਂ 01-07-2023 ਤੋਂ 31.07.2023 ਤੱਕ
- (2) ਸਰਦੀ ਦੀਆਂ ਛੁੱਟੀਆਂ 25-12-2023 ਤੋਂ 07-01-2024 ਤੱਕ

ਐਜੂਕੇਸ਼ਨ/ਵਿਥੀਕਲ ਐਜੂਕੇਸ਼ਨ/ਐਨੇਜਮੈਂਟ/ਟੈਕਨਾਲੋਜੀ/ਲਾਅ ਕੋਰਸਾਂ ਜਾਂ ਕੋਈ ਹੋਰ ਕੋਰਸਾਂ ਦੇ ਦਾਖਲੇ, ਜੋ ਕੇਂਦਰੀ ਦਾਖਲਾ ਏਜੰਸੀ/ਪੰਜਾਬ ਸਰਕਾਰ ਵੱਲੋਂ ਐਂਟਰੈਂਸ ਟੈਸਟ/ਆਨ ਲਾਈਨ ਪ੍ਰਕਿਰਿਆ ਵਾਲੀ ਕੀਤੇ ਜਾਂਦੇ ਹਨ, ਉਨ੍ਹਾਂ ਕੋਰਸਾਂ ਦੇ ਦਾਖਲਿਆਂ ਦਾ ਸ਼ਿਡਿਊਲ ਯੂਨੀਵਰਸਿਟੀ ਵੱਲੋਂ ਨਿਰਧਾਰਤ ਨਹੀਂ ਕੀਤਾ ਜਾਂਦਾ ਹੈ।

- 2. ਫੈਕਲਟੀ ਕਲਾਸਾਂ (ਐਂਟਰੀ ਪ੍ਰੋਗਰਾਮ ਕੋਰਸ ਅਤੇ ਚੱਲਦੇ ਕੋਰਸ (UG) ਸ਼ੁਰੂ ਹੋਣ ਦੀ ਮਿਤੀ: 01-08-2023
- 3. ਲੈਟ ਦਾਖਲਾ ਫੀਸ ਦਾ ਸ਼ਿਡਿਊਲ:- (ਐਂਡਰ-ਗ੍ਰੈਜੂਏਟ ਕੋਰਸ (ਐਂਟਰੀ ਪ੍ਰੋਗਰਾਮ ਦਾਖਲੇ)

i	500/- ਰੁ: ਲੈਟ ਫੀਸ ਅਤੇ ਕਾਲਜ ਦੇ ਪ੍ਰਿੰਸੀਪਲ ਦੀ ਪ੍ਰਵਾਨਗੀ ਨਾਲ	31.07.2023 ਤੱਕ
ii	1000/- ਰੁ: ਲੈਟ ਫੀਸ ਅਤੇ ਡੀਨ, ਕਾਲਜ ਵਿਕਾਸ ਕੌਂਸਲ ਦੀ ਪ੍ਰਵਾਨਗੀ ਨਾਲ	01.08.2023 ਤੋਂ 09.08.2023 ਤੱਕ
iii	1500/- ਰੁ: ਲੈਟ ਫੀਸ ਅਤੇ ਵਾਈਸ ਚਾਂਸਲਰ ਸਾਹਿਬ ਦੀ ਪ੍ਰਵਾਨਗੀ ਨਾਲ	10.08.2023 ਤੋਂ 21.08.2023 ਤੱਕ
iv	2000/- ਰੁਪਏ ਲੈਟ ਫੀਸ ਅਤੇ ਅਕਾਦਮਿਕ ਕੌਂਸਲ ਦੀ ਪ੍ਰਵਾਨਗੀ ਦੀ ਆਸ ਵਾਈਸ ਚਾਂਸਲਰ ਸਾਹਿਬ ਦੀ ਪ੍ਰਵਾਨਗੀ ਨਾਲ	22.08.2023 ਤੋਂ 31.08.2023 ਤੱਕ

- 4. ਫੈਕਲਟੀ ਕਲਾਸਾਂ (ਐਂਟਰੀ ਪ੍ਰੋਗਰਾਮ ਕੋਰਸ ਅਤੇ ਚੱਲਦੇ ਕੋਰਸ (PG) ਸ਼ੁਰੂ ਹੋਣ ਦੀ ਮਿਤੀ: 16-08-2023
- 5. ਲੈਟ ਦਾਖਲਾ ਫੀਸ ਦਾ ਸ਼ਿਡਿਊਲ:- (ਐਂਡਰ-ਗ੍ਰੈਜੂਏਟ ਕੋਰਸ (ਐਂਟਰੀ ਪ੍ਰੋਗਰਾਮ ਦਾਖਲੇ)

i	500/- ਰੁ: ਲੈਟ ਫੀਸ ਅਤੇ ਕਾਲਜ ਦੇ ਪ੍ਰਿੰਸੀਪਲ ਦੀ ਪ੍ਰਵਾਨਗੀ ਨਾਲ	31.07.2023 ਤੱਕ
ii	1000/- ਰੁ: ਲੈਟ ਫੀਸ ਅਤੇ ਡੀਨ, ਕਾਲਜ ਵਿਕਾਸ ਕੌਂਸਲ ਦੀ ਪ੍ਰਵਾਨਗੀ ਨਾਲ	01.08.2023 ਤੋਂ 05.08.2023 ਤੱਕ
iii	1500/- ਰੁ: ਲੈਟ ਫੀਸ ਅਤੇ ਵਾਈਸ ਚਾਂਸਲਰ ਸਾਹਿਬ ਦੀ ਪ੍ਰਵਾਨਗੀ ਨਾਲ	06.09.2023 ਤੋਂ 11.09.2023 ਤੱਕ
iv	2000/- ਰੁਪਏ ਲੈਟ ਫੀਸ ਅਤੇ ਅਕਾਦਮਿਕ ਕੌਂਸਲ ਦੀ ਪ੍ਰਵਾਨਗੀ ਦੀ ਆਸ ਵਾਈਸ ਚਾਂਸਲਰ ਸਾਹਿਬ ਦੀ ਪ੍ਰਵਾਨਗੀ ਨਾਲ	12.09.2023 ਤੋਂ 15.09.2023 ਤੱਕ

6. ਜਿਹੜੇ ਵਿਦਿਆਰਥੀ ਅਕਾਦਮਿਕ ਸੈਸ਼ਨ 2023-23 ਦੌਰਾਨ ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ ਤੋਂ ਕੋਈ ਵੀ ਕਲਾਸ ਜੋ ਕਿ ਸਲਾਨਾ/ਸਮੇਸਟਰ ਪ੍ਰਣਾਲੀ ਅਧੀਨ ਆਉਂਦੀ ਹੈ, ਪਾਸ ਕਰਨ ਉਪਰੰਤ ਅਗਲੀ ਕਲਾਸ/ਕੋਰਸ ਵਿੱਚ ਦਾਖਲਾ ਲੈਣਾ ਚਾਹੁੰਦੇ ਹਨ, ਉਨ੍ਹਾਂ ਵਿਦਿਆਰਥੀਆਂ ਲਈ ਸੈਸ਼ਨ 2023-24 ਦੇ ਦਾਖਲਿਆਂ ਦਾ ਸ਼ਿਡਿਊਲ (ਚੱਲਦੇ ਕੋਰਸਾਂ ਦੇ ਦਾਖਲੇ) :-

i	ਬਿਨਾ ਲੈਟ ਫੀਸ ਦਾਖਲਾ	(I) ਨਤੀਜਾ ਘੋਸ਼ਿਤ ਹੋਣ ਦੀ ਮਿਤੀ ਤੋਂ 10 ਕੰਮ-ਕਾਜੀ ਦਿਨਾਂ ਦੇ ਅੰਦਰ-ਅੰਦਰ
ii	500/- ਰੁਪਏ ਲੈਟ ਫੀਸ ਅਤੇ ਕਾਲਜ ਦੇ ਪ੍ਰਿੰਸੀਪਲ ਦੀ ਪ੍ਰਵਾਨਗੀ ਨਾਲ	(II) ਉਪਰੋਕਤ (I) ਅਗਲੇ 5 ਤੋਂ ਕੰਮ-ਕਾਜੀ ਦਿਨਾਂ ਦੇ ਅਮਦਰ-ਅੰਦਰ
iii	1000/- ਰੁਪਏ ਲੈਟ ਫੀਸ ਅਤੇ ਡੀਨ, ਕਾਲਜ ਵਿਕਾਸ ਕੌਂਸਲ ਦੀ ਪ੍ਰਵਾਨਗੀ ਨਾਲ	(III) ਉਪਰੋਕਤ (II) ਤੋਂ ਅਗਲੇ 5 ਕੰਮ-ਕਾਜੀ ਦਿਨਾਂ ਦੇ ਅੰਦਰ-ਅੰਦਰ
iv	2000/- ਰੁਪਏ ਲੈਟ ਫੀਸ ਅਤੇ ਵਾਈਸ ਚਾਂਸਲਰ ਸਾਹਿਬ ਦੀ ਪ੍ਰਵਾਨਗੀ ਨਾਲ	(IV) ਉਪਰੋਕਤ (III) ਤੋਂ ਅਗਲੇ 5 ਕੰਮ-ਕਾਜੀ ਦਿਨਾਂ ਦੇ ਅੰਦਰ-ਅੰਦਰ

ਜਿਨ੍ਹਾਂ ਵਿਦਿਆਰਥੀਆਂ ਦੇ ਨਤੀਜੇ ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ ਵੱਲੋਂ ਦੇਰੀ ਨਾਲ ਐਲਾਨੇ ਜਾਣਗੇ, ਉਨ੍ਹਾਂ ਨੂੰ ਅਗਲੀ ਕਲਾਸ ਵਿੱਚ ਦਾਖਲਾ 10 ਕੰਮ-ਕਾਜੀ ਦਿਨਾਂ ਵਿੱਚ ਇਸ ਸ਼ਰਤ ਤੇ ਦਿੱਤਾ ਜਾਵੇ ਕਿ ਨਤੀਜਾ ਚੁੱਕਣ ਵਿੱਚ ਵਿਦਿਆਰਥੀ ਦਾ ਅਪਣਾ ਕੋਈ ਕਸੂਰ ਨਾ ਹੋਵੇ।

(For UG CLASSES) ਸਮੇਸਟਰ-I ਦੀ ਅਵਧੀ	01-08-2023 ਤੋਂ 30.11.2023	(For PG Classes) ਸਮੇਸਟਰ-I ਦੀ ਅਵਧੀ	16-08.2023 ਤੋਂ 08.12.2023
ਸਮੇਸਟਰ-I ਦੀਆਂ ਪ੍ਰੀਖਿਆਵਾਂ ਆਰੰਭ ਹੋਣ ਦੀ ਮਿਤੀ	01.12.2023	ਸਮੇਸਟਰ-I ਦੀਆਂ ਪ੍ਰੀਖਿਆਵਾਂ ਆਰੰਭ ਹੋਣ ਦੀ ਮਿਤੀ	11.12.2023
ਸਮੇਸਟਰ-II ਦੀ ਅਵਧੀ	08.01.2024 ਤੋਂ 30.04.2024	ਸਮੇਸਟਰ-II ਦੀ ਅਵਧੀ	08.01.2024 ਤੋਂ 30.04.2024
ਸਮੇਸਟਰ-II ਦੀਆਂ ਪ੍ਰੀਖਿਆਵਾਂ ਆਰੰਭ ਹੋਣ ਦੀ ਮਿਤੀ	05.05.2024	ਸਮੇਸਟਰ-II ਦੀਆਂ ਪ੍ਰੀਖਿਆਵਾਂ ਆਰੰਭ ਹੋਣ ਦੀ ਮਿਤੀ	05.05.2024

Gurinderjeet Kaur
ਪ੍ਰਿੰਸੀਪਲ,
ਸ਼੍ਰੀਮਾਤਾ: ਪੀ.ਸੀ.ਬੀ.ਓ.ਵਿ., ਸਰਕਾਰੀ ਕਾਲਜ,
ਸਾਹਿਬਜ਼ਾਦਾ ਅਜੀਤ ਸਿੰਘ ਨਗਰ।

ਡੀਨ, ਕਾਲਜ ਵਿਕਾਸ ਕੌਂਸਲ

Academic Calendar(Session 2023-24)

Event	Date
Start of the New Session	1/8/2023
Assembly and Orientation of BA, BCom, B.Sc. Sem-I	2/8/2023
Assembly and Orientation of MA, M.Sc. Sem-I	17/8/2023
Commencement of classes of Semester I,III,V	01/8/2023 onwards
Independence Day	15/8/2023
Teej	26/8/2023
Talent Hunt	9/9/2023
Teachers Day	5/9/2023
MST-I	25/9/2023 to 30/9/2023
Gandhi Jayanti	2/10/2023
Educational Trip	First and second week of October
Food Safety Day	15/10/2023
MST-II	6/11/2023 to 11/11/2023
Punjab Day	1/11/2023
Constitution Day	26/11/2023
Aids Day	1/12/2023
Examination of odd semester	1/12/2023 onwards
International Day for Disabled Persons	30/12/2023
Army Day	26/12/2023
Commencement of classes of Semester II, IV	08/01/2024 onwards
Lohri	13/01/2024
Voters Day	25/01/2024
Republic Day	26/01/2024
Basant Panchmi	4/02/2024
International Social Justice Day	20/02/2024
International Mothers' Day	21/02/2024
Convocation	10/03/2024
National Science Day	28/02/2024
Placement Drive	Month of March

Gurinderjeet Kaur
 ਪ੍ਰਿੰਸੀਪਲ,
 ਸ਼:ਮੇ:ਹ:ਪ:ਸਿੰ:ਬੋ:ਚੋ:ਵਿ., ਸਰਕਾਰੀ ਕਾਲਜ,
 ਸਾਹਿਬਜ਼ਾਦਾ ਅਜੀਤ ਸਿੰਘ ਨਗਰ।

ਸ਼ਹੀਦ ਮੇਜਰ ਹਰਮਿੰਦਰਪਾਲ ਸਿੰਘ (ਸ਼ੀ.ਚੌ.) ਸਰਕਾਰੀ ਕਾਲਜ, ਸਾਹਿਬਜ਼ਾਦਾ ਅਜੀਤ ਸਿੰਘ ਨਗਰ

SHAHEED MAJOR HARMINDERPAL SINGH (Shujayn Chakra) GOVERNMENT COLLEGE, SAHIBZADA AJIT SINGH NAGAR

ਫੋਨ-6, ਸਾਹਿਬਜ਼ਾਦਾ ਅਜੀਤ ਸਿੰਘ ਨਗਰ (ਮੋਹਾਲੀ)-160056

Phone No. 0172-2225164

e-mail ID: principal.gemohals@gmail.com

Annual Sports Day	03/03/2024
MST-I	24/02/2024 to 05/03/2024
International Women's Day	08/03/2024
International Zero Waste Day	30/03/2024
International Health Day	07/04/2024
MST-II	02/04/2024 to 11/04/2024
Earth Day	22/04/2024
Environment Day	05/05/2024
Examination of even semester	05/05/2024 onwards
Tree Plantation Drive	First week of July, last week of September, second week of March
G-20 Activities	First and third week of Month

Gurudeyee Kaur
ਪ੍ਰਿੰਸੀਪਲ,
ਸ਼:ਮੇ:ਹ:ਪ:ਸਿ:ਬੋ:ਓ:ਵਿ:, ਸਰਕਾਰੀ ਕਾਲਜ,
ਸਾਹਿਬਜ਼ਾਦਾ ਅਜੀਤ ਸਿੰਘ ਨਗਰ ।



DEPARTMENT OF PHYSICS

Academic Calendar for session 2023-2024

Note from the Department's Faculty

“Our department strongly believes in creating a vibrant and engaging learning environment, and we strive to achieve 100% participation from our students in all activities. We understand that every student has unique interests and strengths, and that participation in extracurricular activities can help to develop vital skills in leadership, communication, and teamwork. We aim to provide a diverse range of activities that cater to the varied interests of our students, and we encourage them to take an active role in shaping and participating in these activities. By fostering a culture of active participation, we believe that our students will be better equipped to succeed both academically and in their chosen careers.”

-Prof. Munisha Mahajan

Department's Vision: To establish problem-solving attitude among students.

Department's Mission: To inculcate Scientific Temperament.

To encourage understanding and discourage cramming.

Time-table

Class	0 8:30- 9:00	1 9:00- 9:45	2 9:45- 10:30	3 10:30- 11:15	4 11:15- 12:00	5 12:00- 12:45	6 12:45- 1:30	7 1:30- 2:15	8 2:15- 3:00	9 3:00- 3:45	10 3:45- 4:30
B.Sc. I	[#] RC (1-4) [§] AL (1,2)							Practical (5,6) (Groups NM & CA)			
B.Sc. II	[#] RC (1,2,5,6) [§] AL (3,4)			Practical (3,4) (Group NM & CA)							
B.Sc. III	[#] RC (3,4,5,6) [§] AL (5,6)	Practical (1,2) (Group NM & CA)									

[#]Remedial Classes continue from 2nd week to 3rd week in the month of November for odd semesters and from 3rd week to 4th week in the month of April for even semesters.

[§]Classes for Advance Learners in the fourth week of November for odd semesters and in the first week of May for even semesters.

Number of Students

S.No.	Class	Strength
1	B.Sc. I (Non-Med. & Computer Appl.)	36
2	B.Sc. II (Non-Med. & Computer Appl.)	21
3	B.Sc. III (Non-Med. & Computer Appl.)	24

Activity Chart

Semester 1,3,5		
Month	Activity	Goals/Learning Outcomes
August	<ul style="list-style-type: none"> Preparing workload for the upcoming session. Curriculum distribution and preparing Lesson Plans. To have an introductory session for B.Sc. II and III-year students. To begin theory and practical classes of B.Sc. II and III-year students. Orientation day for the entry-class students. 	<ul style="list-style-type: none"> To make teaching effective and convenient. To make teaching-learning effective. To inform students the syllabus and books to be purchased. To ensure that syllabus is finished on time. To familiarize the students with general code of conduct in department as well as in college.
September	<ul style="list-style-type: none"> To assign the responsibility of giving a short lecture on any topic of B.Sc. Physics for 15 minutes in the class to the students of B.Sc. III year roll number-wise. Poster-making competition to be organized on World Ozone Day. 	<ul style="list-style-type: none"> To enhance their public speaking skills and overall subject-related knowledge. To inculcate environmental awareness.
October	<ul style="list-style-type: none"> Paper reading competition on the topic "Volunteering for Blood Donation". To make Academic Bank of Credit (ABC) account of students. 	<ul style="list-style-type: none"> To educate students about Blood Donation – Do's and Don'ts. To aware the students about the benefits of ABC as proposed by NEP-2020.
November	<ul style="list-style-type: none"> Completion of syllabus followed by revision. 	<ul style="list-style-type: none"> To ensure students have ample time for revision.
December	<ul style="list-style-type: none"> To motivate students to participate in poster-making contest on 'World AIDS Day'. Continuous doubt-clearing sessions for all the three classes on alternate days. 	<ul style="list-style-type: none"> To spread awareness about HIV-AIDS. To ensure effective learning so that students achieve better grades in exams. This

	<ul style="list-style-type: none"> Commencement of semester examinations. 	benefits both slow and advanced learners.
<p>* Monthly test of B.Sc. III, II and I on Mondays, Wednesdays and Fridays of third week, respectively in August, September and October.</p> <p>* Assignment collection of B.Sc.-III, II and I on Tuesday, Thursday and Saturday, respectively of third week of October.</p> <p>* MST of B.Sc. III, II and I on the first Monday, Wednesday and Friday of November, respectively.</p> <p>* Remedial classes in the zero period for the second and third week in the month of November.</p> <p>* Classes for Advanced Learners in the zero period in the fourth week of November.</p>		
Semester 2,4,6		
Month	Activity	Goals/Learning Outcomes
January	<ul style="list-style-type: none"> Commencement of the theory classes and practicals after exams. 	<ul style="list-style-type: none"> To ensure that syllabus is finished on time.
February	<ul style="list-style-type: none"> Open-book test for B.Sc. I, II and III on consecutive days of second week from the syllabus done so far. 	<ul style="list-style-type: none"> To test the overall understanding and ability to respond answers correctly.
March	<ul style="list-style-type: none"> Taking students to daily practice for participating in Sports Day Parade. To organize paper presentation, power-point presentation, rangoli-making and quiz on the occasion of the “National Science Day” celebration. 	<ul style="list-style-type: none"> To ensure all-round development of students. To achieve learning-by-doing and establishing a sense of gratitude towards science.
April	<ul style="list-style-type: none"> Completion of syllabus followed by revision. 	<ul style="list-style-type: none"> To ensure students have ample time for revision.
May	<ul style="list-style-type: none"> Continuous doubt-clearing sessions for all the three classes on alternate days. Commencement of semester examinations. 	<ul style="list-style-type: none"> To ensure effective learning so that students achieve better grades in exams. This benefits both slow and advanced learners.
June	-----Examinations-----	-----Examinations-----
<p>* Monthly test of B.Sc. III, II and I on Mondays, Wednesdays and Fridays of third week, respectively in February, March and April.</p>		

- *Assignment collection of B.Sc.-III, II and I on Tuesday, Thursday and Saturday, respectively of third week of April.
- *MST of B.Sc. III, II and I on the first Monday, Wednesday and Friday of April, respectively.
- *Remedial classes in the zero period for the third and fourth week in the month of April.
- *Classes for Advanced Learners in the zero period in the first week of May.

Pictures



Interaction with Students



Paper Reading Competition



Quiz Competition

SHAHEED MAJOR HARMINDERPAL SINGH (S.C.V.) GOVERNMENT COLLEGE, SAHIBZADA AJIT SINGH NAGAR

Phase-6, Sahibzada Ajit Singh Nagar-160055

Phone No. 0172-2225164

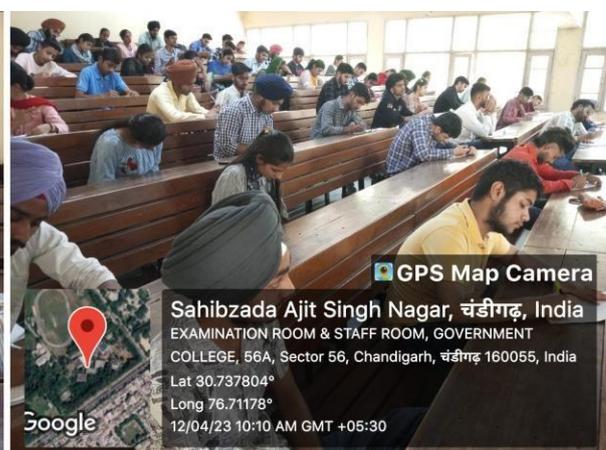
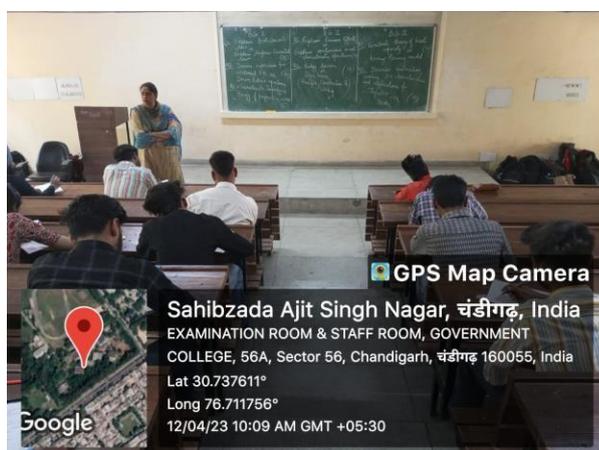
e-mail ID: principal.gcmohali@gmail.com



(Open-Book Test of students from key topics)



(Sports Day Parade Practice)



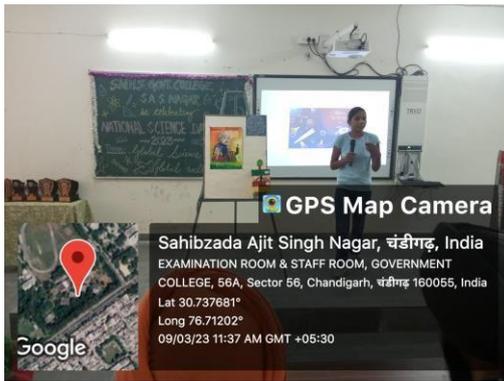
(MST)

SHAHEED MAJOR HARMINDERPAL SINGH (S.C.V.) GOVERNMENT COLLEGE, SAHIBZADA AJIT SINGH NAGAR

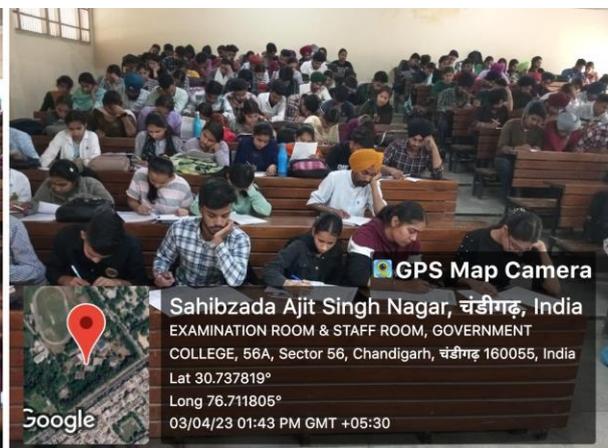
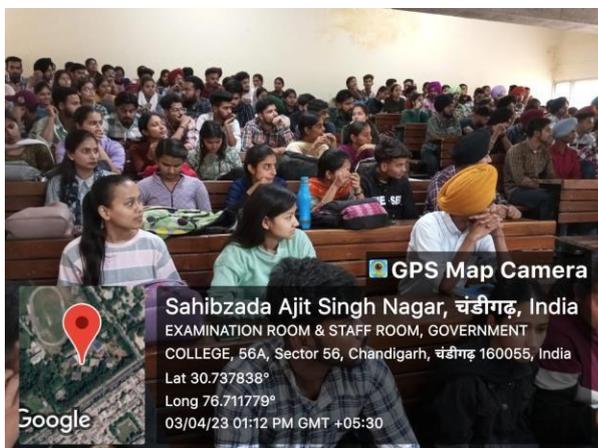
Phase-6, Sahibzada Ajit Singh Nagar-160055

Phone No. 0172-2225164

e-mail ID:principal.gcmohali@gmail.com



(Science Day Celebration)



(Participation of Science Students in Psychometric Test)



(Trip to Rail Coach Factory, Kapurthala)



(World Ozone Day Celebration)

In our department, we are consistently impressed by the enthusiasm and dedication that our students bring to a wide range of extracurricular activities. Whether it's participating in sports activities, taking part in intra-college and inter-college competitions, Youth Festivals, or volunteering in the local community, our students consistently show a deep commitment to making a positive impact in the world. Their passion and drive are truly inspiring, and we are constantly amazed by their willingness to go above and beyond in pursuit of their goals.

Unitization Plan

B.Sc. I

Mechanics

August: Cartesian and spherical polar co-ordinate systems, area, volume, displacement, velocity and acceleration in these systems, Solid angle, Various forces in Nature (brief introduction), Centre of mass, Equivalent one body problem.

September: Central forces, Equation of motion under central force, Equation of orbit in inverse square, Force field and turning points, Coriolis force and its applications, Variation of acceleration due to gravity with latitude. Kepler laws and their derivations. Rigid body motion: Rotational motion, principal moments and axes,

October: Euler's equations; precession and elementary gyroscope. Galilean transformation and Invariance, Non- Inertial frames, concept of stationary universal frame of reference and ether Inertial frame of reference. Michelson-Morley experiment and its result, Postulates of special theory of relativity, Lorentz transformations, Observer and viewer in relativity, Relativity of simultaneity.

November: Length, Time, Velocities, Relativistic Doppler effect, Variation of mass with velocity, mass-energy equivalence, rest mass in an inelastic collision. Relativistic momentum and energy, their transformation, concepts of Minkowski space, four vector formulation.

Electricity and Magnetism

August-

Basic ideas of Vector Calculus, Gradient, Divergence, curl and their physical significance, Electric field due to dipole line charge and sheet of charge. Electric flux, Gauss's Law and its applications. Gauss's divergence theorem and differential form of Gauss's Law. Green's theorem.

September-

Work and potential difference. Potential difference as line integral of electric field. Electric potential due to a point charge, a group of point charges, dipole and quadrupole moments, long uniformly charged wire, charged disc. Stoke's theorem and its application in Electrostatic field, curl $\mathbf{E}=0$. Electric field as gradient of scalar potential. Calculation of \mathbf{E} due to a point charge and dipole from potential. Potential due to arbitrary charge distribution and multipole moments.

October:

Current and current density, equation of continuity. Microscopic form of Ohm's Law ($\mathbf{J}=\sigma\mathbf{E}$) and conductivity. Failure of Ohm's Law. Invariance of charge. \mathbf{E} in different frames of reference. Field of a point charge moving with constant velocity. Interaction between moving charges and force between parallel currents. Behaviour of various substances in magnetic field. Definition of \mathbf{M} and \mathbf{H} and their relation to free and bound currents. Permeability and susceptibilities and their inter-relationship.

November:

Lorentz's force. Ampere's Circuital law and its application. Divergence and curl of \mathbf{B} . Faraday's Law of EM induction. Displacement current. Maxwell's equations. Mutual inductance and reciprocity theorem. Self inductance L for solenoid. Coupling of Electrical circuits. Analysis of LCR series and parallel resonant circuits. Q -factor. Power consumed power factor.

Vibrations and Waves

January: Simple harmonic motion, Differential equation of motion, energy of a Simple Harmonic Oscillation (SHO), Electrical oscillations, Transverse vibrations of a mass on a string, composition of two perpendicular SHM of same period and of period ratio 1 : 2, Anharmonic oscillations.

February: Decay of free vibrations due to damping, types of damping, Determination of damping co-efficient-logarithmic decrement, relaxation time and Q-Factor, Electromagnetic damping (Electrical oscillator).

March: Differential equation for forced mechanical and electrical oscillators, Transient and steady state oscillation. Stiffness coupled oscillators, Normal co-ordinates and normal modes of vibration, Inductance coupling of electrical oscillators, Types of waves, Wave equation (transverse) and its solution, The string as a forced oscillator, Characteristic impedance of a string, Impedance matching.

April: Q value of a forced oscillator and band width, Q-value as an amplification factor of low frequency response. Reflection and transmission of energy, Reflection and Transmission Energy, Reflection and transmission of string, wave and group velocity, Standing waves on a string of fixed length, Energy of vibrating energy string, wave and group velocity

Optics

January: Concept of coherence, Spatial and temporal coherence, Coherence time, Coherence length, Area of coherence, Conditions for observing interference fringes, Interference by wave front division and amplitude division, Michelson's interferometer—working.

February: Principle and nature of fringes, Interference in thin films, Role of interference in anti-reflection and high reflection dielectric coatings, Multiple beam interference, Fabry-Perot interferometer, Nature of fringes, Newton Rings.

March: Huygens-Fresnel theory, half-period zones, Zone plates, Distinction between Fresnel and Fraunhofer diffraction, Fraunhofer diffraction at rectangular and circular apertures, Effects of diffraction in optical imaging, resolving power of telescope, The diffraction grating, its use as a spectroscopic element and its resolving power.

April: Concept and analytical treatment of un-polarized, plane polarized and elliptically polarized light. Double refraction, Nicol prism, Sheet polarizer, Retardation plates, Production and analysis of polarized light (quarter and half wave plates).

Sem I Practicals

August:

1. To establish relationship between torque and angular acceleration using fly wheel and hence to find inertia of flywheel.
2. To study the resonance in series and parallel LCR circuit for different resistance and calculate Q value .

September:

1. Study the dependence of moment of inertia on distribution of mass (by noting time periods of oscillations) using objects of various geometrical shapes but of same mass.
2. Verify laws of electromagnetic induction and hence study the induced e.m.f. as a function of velocity.

October:

1. To study the efficiency of an electric kettle/heater element with varying input voltages.
2. To study the working of energy meter.

3. Determination of unknown capacitance by flashing and quenching of neon lamp.

Sem II Practicals

January:

1. To study the variation of time period with distance between centre of suspension and centre of gravity for a bar pendulum and to determine
 - i) Radius of gyration of bar pendulum about an axis through its Centre of Gravity and perpendicular to its length.
 - ii) Value of Centre of Gravity, g .
2. Determination of g by Kater's pendulum.

February:

1. To determine the refractive index of liquid using spectrometer.
2. To determine the Cauchy's constants.
3. To study refractive index of doubly refracting prism.

March:

1. To determine the resolving power of a telescope.
2. To measure an inaccessible height using sextant.
3. Measurement for logarithmic decrement, coefficient of damping, relaxation time and quality factor of a damped simple pendulum.

B.Sc. II

Statistical Physics and Thermodynamics-I

August: Basic ideas of statistical physics, Scope of statistical physics, Basic ideas about probability, distribution of four distinguishable particles in two compartments of equal size. Concept of macro states, microstates, thermodynamic probability, Effects of constraints on the system.

September: Distribution of n particles in two compartments, Deviation from the state of maximum probability, equilibrium state of dynamic system, Distribution of distinguishable n particles in k compartments of unequal sizes, Phase space and its division into elementary cells, Three kinds of statistics, The basic approach in the three statistics.

October: Maxwell Boltzmann (MB) statistics applied to an ideal gas in equilibrium, Experimental verification of Maxwell Boltzmann law of distribution of molecular speeds, Need for quantum statistics-Bose-Einstein (B.E.) statistics, Derivation of Planck's law of radiation.

November: Deduction of Wien's displacement law and Stefan's law from Planck's law, Fermi-Dirac (F.D.) statistics, Comparison of M.B., B.E. and F.D. statistics.

Statistical Physics and Thermodynamics-II

January: Statistical definition of entropy, Change of entropy of a system, Additive nature of entropy, Law of increase of entropy, Reversible and irreversible process and their examples, Work done in a reversible process, Examples of increase of entropy in natural processes, Entropy and disorder, Brief review of terms and laws of thermodynamics.

February: Carnot's cycle, Entropy changes in Carnot cycle, Applications of thermodynamics to thermoelectric effect, Change of entropy along a reversible path in a P.V. diagram, Entropy of a perfect gas, Equation of state of an ideal gas from simple statistical consideration, Heat death of the universe.

March: Derivation of Maxwell's thermodynamical relations, Cooling produced by adiabatic stretching, Adiabatic compression, Change of internal energy with volume, specific heat at constant pressure and constant volume, Expression for $C_p - C_v$, Change of state and Clapeyron equation.

April: Thermodynamical treatment of Joule-Thomson effect, Use of Joule-Thomson effect, liquefaction of helium, Production of very low temperature by adiabatic demagnetization.

Optics

August: Concept of coherence, Spatial and temporal coherence, Coherence time, Coherence length, Area of coherence, Conditions for observing interference fringes, Interference by wave front division and amplitude division, Michelson's interferometer—working.

September: Principle and nature of fringes, Interference in thin films, Role of interference in anti-reflection and high reflection dielectric coatings, Multiple beam interference, Fabry-Perot interferometer, Nature of fringes, Newton Rings.

October: Huygens-Fresnel theory, half-period zones, Zone plates, Distinction between Fresnel and Fraunhofer diffraction, Fraunhofer diffraction at rectangular and circular apertures, Effects of diffraction in optical imaging, resolving power of telescope, The diffraction grating, its use as a spectroscopic element and its resolving power.

November: Concept and analytical treatment of un-polarized, plane polarized and elliptically polarized light. Double refraction, Nicol prism, Sheet polarizer, Retardation plates, Production and analysis of polarized light (quarter and half wave plates).

Lasers

January: Derivation of Einstein's relations, Concept of stimulated emission and population inversion, Broadening of spectral lines, natural, collision and Doppler broadening, Line width, Line profile, Absorption and amplification of a parallel beam of light passing through a medium.

February: Threshold condition, Introduction of three level and four level laser schemes, elementary theory of optical cavity, Longitudinal and transverse modes.

March: Types of lasers, Ruby and Nd: YAG lasers, He-Ne and CO₂ lasers-construction, mode of creating population inversion and output characteristics, Semiconductor lasers.

April: Dye lasers, Q-switching, Mode locking, Applications of lasers—a general outline, Basics of holography.

Quantum Mechanics-I

August: Brief introduction to need and development of quantum mechanics, Wave-particle duality, de-Broglie hypothesis, Complementarity and uncertainty principle, Gaussian wave-packet, Schrodinger equation for a free particle, operator correspondence and equation for a particle subject to forces, Normalization and probability.

September: Interpretation of wave function, Super position principle, Expectation value, probability current and conservation of probability, Admissibility conditions on the wave function, Ehrenfest theorem, Fundamental postulates of wave mechanics, Eigen functions and eigen values, Operator formalism, Orthogonal systems, Expansion in eigen functions.

October: Hermitian operators, Simultaneous eigen functions, Equation of motion, Time dependent Schrodinger equation. Application to stationary states for one-dimension, Potential step, Potential barrier, Rectangular potential well, Degeneracy, Orthogonality, Linear harmonic oscillator.

November: Schrodinger equation for spherically symmetric potential, Spherical harmonics. Hydrogen atom energy levels and eigen functions. Degeneracy, Angular momentum.

Quantum Mechanics-II

January: Excitation of atom with radiation, Transition probability, Spontaneous transition, Selection rules and life time, Spectrum of hydrogen atom, Frank Hertz Experiment, Line structure, Normal Zeeman effect, Electron spin.

February: Stern Gerlach experiment, Spin orbit coupling (electron magnetic moment, total angular momentum), Hyperfine structure, Examples of one electron systems, Anomalous, Zeeman effect, Lande's-g factor (sodium D-lines).

March: Exchange symmetry of wave functions, exclusion principle, Shells, Sub shells in atoms, atomic spectra (Helium), L.S. coupling, Selection rules, Regularities in atomic spectra, Interaction energy, X-ray spectra, Mosley law, Absorption spectra, Auger effect, Molecular bonding.

April: Molecular spectra, Selection rules, Symmetric structures, Rotational, vibrational electronic level and spectra of molecules, Raman spectra.

Sem III Practicals

August:

1. Probability distribution using coloured dice coins.
2. Study the photoelectric effect and determine the value of Planck's constant.
3. To determine the refractive index of liquid using spectrometer.

September:

1. To determine the Cauchy's constants.
2. To study the refractive index of doubly refracting prism.

October:

1. To determine the wave length of a given light using bi-prism.
2. To determine the resolving power of a telescope.

Sem IV Practicals

January:

1. Study of rotation of plane of polarization with a polarimeter.
2. Set up Newton's rings to determine wave length of sodium light.

February:

1. To determine the wave length and dispersive power using plane diffraction grating (Use Hg source).
2. To determine the resolving power of a grating.
3. To determine the ionization potential of mercury.

March:

1. To measure an inaccessible height using sextant.
2. To study the absorption spectra of iodine vapours.
3. Study of variation of light intensity using photovoltaic cell/inverse square law.

B.Sc. III

Condensed Matter Physics-I

August: Crystal Structure, Symmetry operations for a two-dimensional crystal, Two dimensional Bravais lattices, Three dimensional Bravais lattices, Basic primitive cells.

September: Crystal planes and Miller indices, Diamond and NaCl structure, Packing fraction for Cubic and hexagonal closed packed structure.

October: Bragg's Law, Experimental methods for crystal structure studies, Laue equations, Reciprocal lattices of SC, BCC and FCC.

November: Bragg's Law in reciprocal lattice, Brillouin zones and its derivation in two dimensions, Structure factor and atomic form factor.

Condensed Matter Physics -II

January: Lattice vibrations, Concepts of phonons, Scattering of neutrons by phonons, Vibration of mono-atomic, di-atomic, linear chains, Density of modes.

February: Einstein and Debye models of specific heat, Free electron model of metals, Free electron, Fermi gas and Fermi energy, Band theory, Kronig-Penney Model, Metals and insulators.

March: Conductivity and its variation with temperature in semiconductors, Fermi levels in intrinsic and extrinsic semiconductors, Qualitative discussion of band gap in semiconductors, superconductivity.

April: Magnetic field effect in superconductors, BCS theory, Thermal properties of superconductors.

Electronics-I

August: Concept of current and voltage sources, p-n junction, Biasing of diode, V-A characteristics. Diode equation, Breakdown diodes: Zener breakdown and avalanche breakdown, Zener diode. Rectification: half wave, full wave rectifiers and bridge rectifiers, Qualitative analysis of Filter circuits (RC LC and π filters) Efficiency, Ripple factor, Voltage regulation, Voltage multiplier circuits.

September: Structure and working, relation between different currents in transistors, Sign conventions, Amplifying action, Different configurations of a transistor and their comparison, CB and CE characteristics.

October: Structure, Characteristics, operation of FET, JFET and MOSFET, Pinch off voltage, Enhancement and Depletion mode, Comparison of JFETs and MOSFETs, Difference in field effect transistor and junction type transistor.

November: Photo-conductive devices: Photo-conductive cell, Photodiode, Solar cell, LED, LCD.

Electronics-II

January: Thyristor, SCR, TRIAC, DIAC: Construction, Characteristics and Operation; Comparison between transistors and thyristors; Difference between SCR and TRIAC, UJT: its construction, Equivalent circuit, Characteristics and parameters, uses, Thermistor: Types, Construction, Characteristics, Uses, Advantages over other temperature sensing devices.

February: IMPATT and TRAPATT devices, PIN diode: Construction, Characteristics, Applications, Gunn effect and diodes: Mechanism, Characteristic, Negative differential resistivity and Domain formation, Tunnel diode: Tunnelling Phenomenon, Operation, Applications, Merits and Drawbacks.

March: Transistor biasing: Stabilization of operating point, Fixed bias, Collector to base bias,

Bias circuit with emitter resistor, Voltage divider biasing circuit, CE amplifier: Working and analysis using h-parameters, Equivalent circuits, Determination of current gain, Power gain, Input impedance, FET amplifier: Voltage, Current and Power gain.

April: Feed-back in amplifiers: Types & advantage of negative feedback, Emitter follower as negative feed-back circuit.

Nuclear and Radiation Physics

August: Constituents of nucleus and their intrinsic properties, Qualitative facts about size, mass, density, energy, charge, Binding energy, angular momentum, magnetic moment and electric quadruple moments of the nucleus, Wave mechanical properties of nucleus, average binding energy and its variation with mass numbers.

September: Properties of nuclear forces, Non-existence of electrons in the nucleus and neutron-proton model, Liquid drop model and semi empirical mass formula, Conditions of nuclear stability, Fermi gas model, Nuclear shell model, Experimental evidence of magic numbers and its explanation.

October: Radioactivity, Modes of decay and successive radioactivity, Alpha emission, Electron emission, Positron emission, Electron capture, Gamma-ray emission, Internal conversion, Qualitative discussion of alpha, beta and gamma spectra, Geiger-Nuttal rule, Neutrino hypothesis of beta decay, Evidence of existence of neutrino.

November: Qualitative discussion of alpha and beta decay theories, Nuclear reactions, Reaction cross section, Conservation laws, Kinematics of nuclear reaction, Q-value and its physical significance, Compound nucleus, Possible reaction with high energy particles.

Nuclear and Particle Physics

January: Energy loss due to ionization (Bethe's formula), Energy loss of electrons, Bremsstrahlung, Interactions of gamma rays with matter, Radiation loss by fast electrons, Radiation length, Electron-positron annihilation.

February: Cyclotron, Betatron, Qualitative discussion of Synchrotron, Collider machines and linear accelerator, Ionization chamber, Proportional counter, GM counter, Scintillation counter, Solid state detectors, Elementary particles and their masses.

March: Decay modes, Classification of these particles, types of interactions, Conservation laws and quantum numbers, Concepts of isospin, Strangeness, Parity, Charge conjugation, Antiparticles, Gell-Mann method, Decay and strange particles.

April: Particle symmetry, Introduction to quarks and qualitative discussion of the quark model.

Sem V Practicals

August:

1. Measurement of reverse saturation current in p-n junction diode at various temperatures and to find the approximate value of energy gap.
2. To draw forward and reverse bias characteristics of a p-n junction diode and draw a load line.
3. Study of a diode as clipping element.

September:

1. To show the variation of resistance of a thermistor with temperature.
2. To measure the efficiency and ripple factors for a) Half-wave (b) full wave and (C) bridge rectifier circuits.
3. To draw the characteristics of a Zener diode.

October:

1. To study the stabilization of output voltage of a power supply with Zener diode.
2. To Plot common Emitter Characteristics of a transistor (pnp or npn).
3. To draw output and mutual Characteristics of an FET and determine its parameters.

Sem VI Practicals

January:

1. To trace the B-H curves for different materials using CRO and find the magnetic parameters from these.
2. Study of a diode as clamping element.

February:

1. To Plot common base Characteristics and determine h-parameters of a given transistor.
2. To study the characteristics of a thermistor and find its parameters.
3. To study the gain of an amplifier at different frequencies and to find band width and gain bandwidth product.

March:

1. To draw the plateau of a GM counter and find its operating voltage.
2. To study the statistical fluctuations of G.M. Counter to find its standard deviation.

Course Outcomes

Course outcomes are essential components of any academic program, as they clearly define the knowledge, skills, and competencies that students are expected to acquire upon completion of the course. They provide a roadmap for instructors and students alike, outlining the key learning objectives and marking a clear pathway towards successful completion of the course. By setting clear and measurable learning outcomes, instructors ensure that they are teaching what students need to know in order to achieve mastery of the subject matter. This enables students to set goals, track their progress, and understand their performance in relation to the expectations set by the course.

Program Name: B.Sc. Physics	Program Code: PHYB3PUP
Program Specific Outcomes: <ol style="list-style-type: none">1. Gain in-depth knowledge about different subjects of Physics.2. Apply fundamental principles of physics and mathematical tools to describe and explain real-life phenomena.3. Integrate and utilize concepts and techniques learned in Physics including the essentials of mechanics, electricity and magnetism, vibrations and waves, statistical physics and thermodynamics, quantum mechanics, lasers, optics, condensed matter physics, electronics, nuclear physics, radiation physics and particle physics.4. Perform well in solving numericals and prepare them for future entrance examinations.5. Acquire practical skills to conduct wide range of scientific experiments.	

6. Identify their area of interest for pursuing future studies.
7. Encourage analytical mind and innovative thinking.

Programme Specific Outcomes

Programme outcomes refer to the key knowledge and skills that students are expected to acquire upon completion of a physics program. Physics-based program outcomes typically include both content-based outcomes and skills-based outcomes, such as the ability to analyze and solve complex problems, work collaboratively, and communicate effectively. By focusing on physics-based program outcomes, instructors ensure that students are well-equipped with the knowledge and skills needed to excel in their chosen careers.

Program Name: B.Sc. Physics-I (Sem-I)	Course Name: Mechanics-I
Course Specific Outcomes: On completion of this course, student will be able to	
<ol style="list-style-type: none"> 1. This course expands the basic knowledge of different coordinate systems. 2. The students learn the concepts of centre of mass and conversion of two-body problem into equivalent one-body problem. 3. Basic understanding of space and time symmetries. 4. Concepts of elastic collision in laboratory and centre-of-mass frames of reference. 	

Program Name: B.Sc. Physics-I (Sem-I)	Course Name: Vibrations and Waves-I
Course Specific Outcomes: On completion of this course, student will be able to	
<ol style="list-style-type: none"> 1. The students gain understanding of simple harmonic motion and how to represent wave motions in the form of equations. 2. The general and advanced concepts of damping are made clear. 3. The students are familiarized with forced mechanical and electrical oscillators. 4. Different quantities associated with forced oscillations are taught. 	

Program Name: B.Sc. Physics-I (Sem-I)	Course Name: Electricity and Magnetism-I
Course Specific Outcomes: On completion of this course, student will be able to	
<ol style="list-style-type: none"> 1. The basic understanding of vector calculus is further enhanced with concepts like gradient, divergence and curl based on them. 2. The topics based on electric field followed by Gauss Divergence Theorem and Stoke's Theorem. 	

3. The students' previous learning based on electric potential is further advanced with concepts involving charged wire, sheet of charges, etc.
4. The concepts of dipoles are taught in conjugation with single charges and group of charges.

Program Name: B.Sc. Physics-I (Sem-I)

Course Name: Practicals (Sem-I)

Course Specific Outcomes: On completion of this course, student will be able to

1. The understanding of inertia and moment of inertia is strengthened using flywheel and objects of different shapes.
2. The concepts of elastic collisions and bending of beam are taught.
3. The efficiency of household elements like energy meter and electric kettle are taught which help in enhancing students' concept-based as well as general knowledge.

Program Name: B.Sc. Physics-I (Sem-II)

Course Name: Mechanics-II

Course Specific Outcomes: On completion of this course, student will be able to

1. The students learn the concepts of rigid body motion involving moments of inertia and Euler's equations.
2. The students are familiarized with most important and revolutionary Michelson-Morley experiment which helps them understand how science broke certain misconceptions and led to the beginning of new era of relativity.
3. The students learn the postulates of Special Theory of Relativity, Galilean and Lorentz transformations.
4. Understanding length, time, velocity, momentum and energy in context of relativity.

Program Name: B.Sc. Physics-I (Sem-II)

Course Name: Vibrations and Waves-II

Course Specific Outcomes: On completion of this course, student will be able to

1. Understanding coupled oscillators, modes of vibration and coupling mechanism.
2. To familiarize students with different concepts of string-based wave motions.
3. Students understand the significance of Maxwell's equations.
4. Students gain the theoretical as well as practical knowledge of concepts based on electromagnetic waves.

Program Name: B.Sc. Physics-I (Sem-II)	Course Name: Electricity and Magnetism-II
Course Specific Outcomes: On completion of this course, student will be able to	
<ol style="list-style-type: none"> 1. Students gain the knowledge regarding behaviour of static charges, charges in motion and forces due to currents. 2. The idea of magnetism and magnetic substances, particularly diamagnetism, paramagnetism and ferromagnetism. 3. Students learn to differentiate the effects due to electric force, magnetic force and electromagnetic force. 4. Students learn the postulates and significance of Faraday's laws, self-inductance and mutual inductance. 	

Program Name: B.Sc. Physics-I (Sem-II)	Course Name: Practicals (Sem-II)
Course Specific Outcomes: On completion of this course, student will be able to	
<ol style="list-style-type: none"> 1. Students learn the importance of gravity and centre of gravity on the basis of bar pendulum and Kater's pendulum-based experiments. 2. The theoretical knowledge of Faraday's laws is strengthened via experiments such as verifying laws of electromagnetic induction and studying induced emf as a function of velocity. 3. The theoretical knowledge gained in the paper of 'Electricity and Magnetism' is strengthened via experiments based on capacitors and LCR. 	

Program Name: B.Sc. Physics-II (Sem-III)	Course Name: Statistical Physics and Thermodynamics-I
Course Specific Outcomes: On completion of this course, student will be able to	
<ol style="list-style-type: none"> 1. Students learn the concepts of statistical physics, microstates, macrostates and thermodynamic probability. 2. The effects of constraints are taught to the students and they understand the mechanism of distributing n particles in k compartments. 3. The basic approach to be followed in three statistics - Maxwell-Boltzmann, Bose-Einstein and Fermi-Dirac is taught to the students. 4. The students are familiarized with Maxwell-Boltzmann statistics and its significance. 	

Program Name: B.Sc. Physics-II (Sem-III)	Course Name: Optics
Course Specific Outcomes: On completion of this course, student will be able to	
<ol style="list-style-type: none"> 1. The students learn the concepts of spatial and temporal coherence. 2. The basic understanding of interference is further enhanced via different concepts and Michelson and Fabry-Perot interferometers. 3. To teach students the concepts of diffraction through Fresnel and Fraunhofer diffraction. 4. To teach students the concepts of polarization. 	

Program Name: B.Sc. Physics-II (Sem-III)	Course Name: Quantum Mechanics-I
Course Specific Outcomes: On completion of this course, student will be able to	
<ol style="list-style-type: none"> 1. To give brief introduction to need and development of quantum mechanics. 2. To familiarize students with popular concepts like Heisenberg's Uncertainty principle, Wave-Particle Duality and Schrödinger equation. 3. To tell students the mathematical and physical significance of different operators in quantum mechanics. 4. To educate students regarding the problems in one and three dimensions. 	

Program Name: B.Sc. Physics-II (Sem-III)	Course Name: Physics Practical Lab (Sem-III)
Course Specific Outcomes: On completion of this course, student will be able to	
<ol style="list-style-type: none"> 1. The probability-based experiment is designed to strengthen the students' learning in 'Statistical Physics and Thermodynamics'. 2. The dark room experiments are taught to the students to maximize their knowledge of optics and involves experiments based on refractive index and resolving power. Students learn how to use spectrometer. 3. The learning achieved in 'Quantum Mechanics' is further enhanced via experiment titled, 'photoelectric effect and determine the value of Planck's constant'. 	

Program Name: B.Sc. Physics-II (Sem-IV)	Course Name: Statistical Physics and Thermodynamics-II
Course Specific Outcomes: On completion of this course, student will be able to	

<ol style="list-style-type: none"> 1. To teach students the concepts of entropy and different topics based on it. 2. Emphasis is laid on laws of thermodynamics which act like a foundation to understand the concept of Carnot cycle. 3. Students are able to distinguish Maxwell's Electromagnetic equations from Maxwell's thermodynamical relations. 4. To teach the applications of thermodynamics and to ensure that students are able to do the derivations.

Program Name: B.Sc. Physics-II (Sem-IV)	Course Name: Lasers
Course Specific Outcomes: On completion of this course, student will be able to	
<ol style="list-style-type: none"> 1. To derive the Einstein's relations. 2. To familiarize students with the concepts of spontaneous emission, stimulated emission, population inversion, broadening of spectral lines and threshold condition. 3. To teach the three-level and four-level laser schemes and familiarize students with the working of different lasers. 4. To teach students the applications of lasers, particularly holography. 	

Program Name: B.Sc. Physics-II (Sem-IV)	Course Name: Quantum Mechanics-II
Course Specific Outcomes: On completion of this course, student will be able to	
<ol style="list-style-type: none"> 1. The course relies on helping students understand one-electron and many-electron atomic spectra. 2. The students are familiarized with different selection rules which determine the transition probability. 3. To teach Normal Zeeman effect, Anomalous Zeeman effect, Molecular spectra and Raman spectra. 4. To teach students the mechanism in which different shells and subshells are filled. 	

Program Name: B.Sc. Physics-II (Sem-IV)	Course Name: Physics Practical Lab (Sem-IV)
Course Specific Outcomes: On completion of this course, student will be able to	

1. To strengthen the concepts of 'Quantum Mechanics' via experiments such as inverse square law, ionization potential of mercury and divergence and wavelength of given laser source.
2. To equip students with the ability to find height of any inaccessible object using sextant.
3. Optics-based topics are further revised via experiments based on Newton's rings, diffraction grating and polarimeter.

Program Name: B.Sc. Physics-III (Sem-V)	Course Name: Condensed Matter Physics-I
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Course Specific Outcomes: On completion of this course, student will be able to

1. To familiarize students with crystal structure and symmetry operations.
2. Students get to know about two-dimensional and three-dimensional Bravais lattices which are the building blocks of different crystal systems.
3. To tell students about Bragg's law and general concept of X-ray Diffraction which forms the crux of material science-based research.
4. Students learn about reciprocal lattices, crystal planes, Miller indices, Brillouin zones and various concepts associated with them.

Program Name: B.Sc. Physics-III (Sem-V)	Course Name: Electronics-I (Electronics and Solid-State Devices)
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Course Specific Outcomes: On completion of this course, student will be able to

1. Students get the basic understanding of construction and working of p-n junction, Zener diodes, rectifiers and filter circuits.
2. Students understand the construction, working and characteristics of different configurations of Junction Transistors.
3. Students learn the structure, working and characteristics of Field Effect Transistors.
4. Students get the idea of functioning of commonly used photoconductive devices.

Program Name: B.Sc. Physics-III (Sem-V)	Course Name: Nuclear and Radiation Physics
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Course Specific Outcomes: On completion of this course, student will be able to

1. To understand the constituents and various intrinsic properties of nucleus.

2. To familiarize students with Liquid Drop model and semi empirical mass formula, conditions of nuclear stability, Fermi Gas model and Nuclear Shell model.
3. To teach the basic and more advanced concepts of radioactivity.
4. To explain conservation laws and kinematics of nuclear reactions.

Program Name: B.Sc. Physics-III (Sem-V)

Course Name: Practicals (Sem-V)

Course Specific Outcomes: On completion of this course, student will be able to

1. The practicals are designed to strengthen the theoretical understanding received through 'Electronics' course.
2. To ensure students are able to draw characteristics of p-n junction diode, Zener diode, common-emitter transistor and field-effect transistor.
3. Some other experiments involve studying diode as clipping element, studying variation of resistance of thermistor with temperature and rectifiers.

Program Name: B.Sc. Physics-III (Sem-VI)

Course Name: Condensed Matter Physics-II

Course Specific Outcomes: On completion of this course, student will be able to

1. To familiarize students with the concepts of lattice vibrations, phonons and vibrations of mono-atomic and di-atomic chains.
2. To teach students Einstein and Debye models of specific heat.
3. To explain band theory of solids, Kronig-Penney model and idea of metals, semi-conductors and insulators.
4. To acquaint students with the concept of superconductivity, magnetic field effect in superconductors, their thermal properties and the famous BCS theory.

Program Name: B.Sc. Physics-III (Sem-VI)

Course Name: Electronics-II

Course Specific Outcomes: On completion of this course, student will be able to

1. Students learn about the construction, working, characteristics and applications of Thyristor, DIAC, TRIAC and UJT.
2. Students learn about the construction, working, characteristics and applications of Gunn diode and Tunnel diode.
3. To teach students about transistor biasing and transistor as amplifier. Students learn to analyse h-parameters.

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| 4. To explain the concept of feedback in amplifiers along with the importance of negative feedback. |
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Program Name: B.Sc. Physics-III (Sem-VI)	Course Name: Nuclear and Particle Physics
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Course Specific Outcomes: On completion of this course, student will be able to

1. To teach students regarding Bethe's formula, energy loss of electrons, Bremsstrahlung, interactions of gamma rays with matter, Radiation loss by fast electrons, radiation length and electron-positron annihilation.
2. To familiarize students with Cyclotron, Betatron, Synchrotron, Collider machines and linear accelerator.
3. To teach students about Ionization chamber, Proportional counter, GM counter, Scintillation counter and Solid-State detectors.
4. To acquaint students with fundamental forces of nature and elementary particles. They learn the concepts such as conservation laws, isospin, strangeness, parity, colour charge, anti-particles, decay, particle symmetry and quark model.

Program Name: B.Sc. Physics-III (Sem-VI)	Course Name: Practicals (Sem-VI)
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Course Specific Outcomes: On completion of this course, student will be able to

1. The experiments are designed in such a way that students get the flavour of electronics and nuclear physics.
2. The students find the characteristics and h-parameters of common-base transistor, characteristics of thermistor, characteristics of thermistor, gain of amplifier and studying diode as clamping element.
3. The concepts of nuclear physics are revived with the experiment based on G.M. counter.

B.com 1st year (1st Semester)

Financial Accounting-1

Session- 2023-24

Professor- Navneet Kaur

Months	Topics
August	Accounting: Meaning, Scope and Importance, Branches of Accounting, Accounting Concepts and Conventions, Double Entry System, Book keeping, Preparation of Journal- Entry of Business Transactions- Sales, Purchase , Payment , Receipt
September	Contra and compound Entry. Subsidiary Books including Cash Book, Ledger, Trial Balance, Preparation of Final Accounts of Sole Traders and Partnership Firms- Trading Account, Profit and Loss Account and Balance Sheet. Bank Reconciliation Statement.
October	Distinction between Capital and Revenue items, Depreciation Methods and Accounting including AS-6. Accounts relating to Partnership: Admission, Calculation of new Profit Sharing Ratio, Goodwill;
November	Accounting Treatment. Accounts relating to Partnership: Retirement and Death of a Partner, Dissolution of Partnership, Amalgamation of Firms, Sale of Firm to a Company, Gradual Realisation of Assets and Piece Meal Distribution.
December	Revision

Navneet Kaur

Hayat G. 7

ਪ੍ਰਿੰਸੀਪਲ,
ਸ਼:ਮੇ:ਹ:ਪ:ਸਿ:ਸੋ:ਚੋ:ਵਿ:, ਸਰਕਾਰੀ ਕਾਲਜ,
ਸਾਹਿਬਜ਼ਾਦਾ ਅਜੀਤ ਸਿੰਘ ਨਗਰ ।

B.com 1st year (1st Semester)

Business Law I

Session- 2023-24

Professor- ROHINI DEVI

Months	Topics
August	LAW OF CONTRACT (1872): Meaning ,Nature and Kinds of contract ; Offer and acceptance- Meaning, Definition and Types of Offer and Acceptance, Rights and Duties; Capacity of parties to contract; Free consent- Coercion, Undue Influence, Fraud,
September	Mistake and Misrepresentation ; Consideration- Meaning, Definition and Types; legality of object; Agreements declared void; Contingent Contract; Performance of Contract; Discharge of contract, Remedies for breach of contract. Special Contracts: Indemnity; Guarantee; Bailment and Pledge;
October	Agency ; SALES OF GOODS ACT (1930): Formation of contracts of sale; Goods and their classification, price; conditions, and warranties; Transfer of Property in Goods; Performance of the Contract of Sales; Unpaid Seller and his Rights, Sale by Auction;
November	Hire Purchase Agreement. Partnership Act (1932): Nature and characteristics, Registration of Partnership firms, Types, Rights, Duties and Implied Authority. Mode of Dissolution. MST The Limited Liability Partnership Act (2008): Salient features, LLP Agreement, Incorporation by Registration. MST.
December	Revision

Rohini Devi

B.com 1st year (2nd Semester)
FINANCIAL ACCOUNTING-II

Session- 2023-24

Professor- Navneet kaur

Months	Topics
January	Accounting for Hire Purchase Transactions: Journal entries and ledger accounts in the books of Hire Vendors and Hire purchaser for large value items including default and repossession, stock and debtors system. Consignment Accounts: Accounting treatment including journal and ledger in the books of consignor and consignee. Joint Ventures: Methods of maintaining Joint venture accounts.
February	Branch Accounting: Dependent and Independent Branches (including foreign branches); Departmental Accounting: Meaning Advantages, Apportionment of Expenses, Inter Departmental Transfers and Provision for Unrealized Profit.
March	E-Accounting: its meaning, Features, Advantages and disadvantages of Manual Accounting versus Computerized Accounting, Financial Accounting Package - Tally. ERP 9.0: Introduction of Tally.ERP 9.0, Phases of Implementation,
April	Configuring Tally, Accounts Management (using TALLY.ERP 9.0 Software Package): Accounts Masters including creating and altering vouchers, Accounts Transactions and preparing and printing Trial Balance and Final Accounts.
May	Revision

Navneet kaur

Navneet 647
ਪ੍ਰਿੰਸੀਪਲ,
ਸ਼.ਮੇ.ਹ.ਪ.ਸਿੰ.ਸੋ.ਚੈਂ.ਵਿ., ਸਰਕਾਰੀ ਕਾਲਜ.
ਸਾਹਿਬਜ਼ਾਦਾ ਅਜੀਤ ਸਿੰਘ ਨਗਰ।

B.com 1st year (2nd Semester)

Business Law II

Session- 2023-24

Professor- Rohini Devi

Months	Topics
January	Negotiable Instrument Act (1881): Definition of negotiable instruments, Features; Promissory Note: Bill of Exchange and Cheque; Holder and Holder in the Due Course; Crossing of a cheque, Types of Crossing; Parties of Negotiable Instruments; Capacity of Parties, Liability of parties; Negotiation- Transfer by Negotiation,
February	Transfer By Assignment; Dishonour and discharge of negotiable instrument- Dishonour by Non Acceptance, Dishonour By Non Payment, Unnecessary Noting; The Consumer Protection- Salient features, Objectives, Commencement and Application, Consumer Protection Councils- Dispute, Agencies and finding; Grievance redressal machinery. Act Recent changes in Consumer Protection Act; Cyber Laws Act 2000- Objectives, Regulatory authorities and Penalties
March	Fraud Prevention. The Patent Act (1970): Introduction, Definitions, Kinds of Patents, Exclusive Marketing rights, Filing and Examination of Application, Term of Patent, Right of Patentee, Restoration of Lapse Patent, Surrender, Revocation and Infringement of Patent, Regulatory Authorities and Penalties. The Factories Act, 1948: Objects and Definitions, Provisions Regarding Health, Safety and Welfare of Workers, Working Hours of Adults, Additional Provisions Regulating Employment of Women in a Factory, Employment of Young Persons And Children
April	Penalties and Procedures. The Information Technology Act (2008): Objectives, Regulatory Authorities and Penalties, Fraud Prevention. The Right to Information Act (2005): Definitions, Right to Information and Obligations of Public Authorities, The Central and State Information Commission, Powers and Functions of the Information Commissions, Appeal and Penalties. MST.
May	Revision

Rohini Devi

B.COM 2nd YEAR (3rd SEMESTER)

INCOME TAX LAW -I (BC305)

SESSION - 2023-24

PROFESSOR - Anurag Bhatta

Months	Topics
August	Definitions, Distinction between Capital and Revenue; Basis of charge; Incidence of tax, Exempted incomes; Agriculture Income & its tax treatment,
September	Computation of Income from salaries and house property .
October	Profit and gains from business and profession including Depreciation, Capital gains, Income from other sources.
November	Carry forward and set off of losses, Income of other persons to be included in assessee's total income. MST
December	Revision

Anurag Bhatta

Haryat 427

ਮਿਸਿਪਲ,
ਪੀ.ਐਚ.ਐਸ. ਐਮ. ਐੱਸ. ਸਰਕਾਰੀ ਕਾਲਜ,
ਸਾਹਿਬਜ਼ਾਦਾ ਅਜੀਤ ਸਿੰਘ ਨਗਰ ।

B.com 2nd year (3th Semester)

Principles of Business Management

Session- 2023-24

Professor- Sunita Mittal

Months	Topics
August	<p>Introduction: Concept, nature, process and significance of management; Levels of Management, Principles of Management, Role of Manager, Importance and Limitations of Management; An overview of functions of Management.</p> <p>Planning: Concept, process and types;</p>
September	<p>Importance and Limitations of Planning;</p> <p>Decision making: Concept and process. Span of Management; Management by objectives- Importance of MBO, Management by Exception; Organising: Concept, nature, process and significance;</p> <p>Organisation Structure; Authority and responsibility relationships. Staffing: Nature, Scope and Process.</p>
October	<p>Recruitment and Selection Process; Motivation: Concept, Theories: Maslow, Herzberg, McGregor- Theory X and Y; Theory Z;</p> <p>Leadership: Concept and leadership styles, Leadership theories- Behavioural Theories and Situational Theories. Communication: Nature, process,</p>
November	<p>Communication Networks and barriers; Steps of Overcoming Communication Barriers, Effective communication; Controlling: Nature, importance, areas of control, control process.</p> <p>Management of Change: Concept, Nature and process of planned change, MST.</p>
December	Revision

Sunita Mittal

B.com 2nd year (3rd Semester)

CORPORATE ACCOUNTING-I

Session- 2023-24

Professor- Harpreet Kaur

Months	Topics
August	Corporate Accounting as per the Companies Act 2013: Issue, forfeiture and re-issue of shares, Pro rata Allotment, Reserve Capital Vs. Capital Reserve, Types of Shares, Minimum Subscription, Calls in Arrear, Calls in Advance; Redemption of preference shares- Creation Of CRR,
September	Reserves Available for The Redemption of Preference Share Capital; Issue and redemption of debentures- Methods of Issue of Debentures, Various Ways of redemption of Debentures- Out of Profits, Out of Capital, Conversion, Redemption out of Provision, Own Debentures- Ex-Interest and Cum-Interest
October	Issue of bonus shares and right shares; Provisions regarding issue of rights shares; Underwriting of shares and debentures; Accounts of underwriters, Types of Underwriting, Accounting Treatment of Underwriting Under Different Types; Managerial Remuneration- Meaning, Ascertainment of Profit for the Purpose of Managerial Remuneration, Calculation of Managerial Remuneration;
November	Final Accounts- Balance Sheet and Statement of Profit and loss, Divisible Profits and disposal of profit; Profit prior to and after incorporation- Calculation of the profit earned prior to Incorporation; Holding And Subsidiary Company consolidated balance sheet of holding companies with one subsidiary only, Minority Interest, Treatment of Goodwill or Cost of Control, Treatment of Capital Profit and Unrealised Profit. MST.
December	Revision

Harpreet

B.com 2nd year (4th Semester)
CORPORATE ACCOUNTING-II

Session- 2023 - 24

Professor- Harpreet Kaur

Months	Topics
January	Corporate Accounting as per the Companies Act 2013: Amalgamation, absorption, merger and reconstruction- Meaning, Accounting in the Nature of Merger and Amalgamation in Nature of Purchase, Purchase Consideration-Methods of Calculating Purchase Consideration- Lump Sum Method,
February	Net Assets Method, Intrinsic Value Method, Net Payment Method for Calculating Purchase Consideration, Accounting for amalgamation of companies as per Indian Accounting Standard 14; Journal Entries in Books of Transferor Company and Transferee Company;
March	Accounting for internal reconstruction; Meaning of Internal Reconstruction, Journal Entries in Books of Accounts of the Company, Capital Reduction. Liquidation Accounts- Meaning and Types of Liquidation- Compulsory Winding up of the company and Voluntary Winding Up of The Company,
April	Accounting treatment in the books of Accounts of the Company going into Liquidation Insurance Company Accounts: Life Insurance and General Insurance; Banking Company Accounts: Preparation of Profit and Loss account and Balance Sheet. Maintaining the Books of Accounts of Banking and Insurance Company. MST.
May	Revision

Harpreet Kaur

ਪ੍ਰਿੰਸੀਪਲ,
ਸ. ਮੇ. ਹ. ਪ. ਸਿ. ਸੈ. ਓ. ਵਿ., ਸਰਕਾਰੀ ਕਾਲਜ,
ਮਹਿੰਦਰਾ ਅਜੀਤ ਸਿੰਘ ਨਗਰ।

Harpreet

Accounting concepts and in an org

B.com II year (4th Semester)

Company Law

Session- 2023-24

Professor- Sunita Mittal

Months	Topics
January	Company: Meaning, features, The Concept of Lifting of Corporate Veil, Emerging Types of Companies- Public and Private Company; Formation of Company – Process of Formation of Company;
February	Promotion & Registration of Company; Preliminary contracts; Memorandum of Association; Articles of Association; Prospectus; Shares & Share Capital, Book Building Process, Dematerialisation of Shares, (Application Supported by Blocked Amount)ASBA System,
March	Transfer & Transmission of Shares, Buyback of Shares; Directors; Borrowing Powers (including debentures); Members; Managerial remuneration, Meetings (including Board Meetings);
April	Different Types of Meetings, Minutes of the Meeting; Majority Powers and Minority Rights; Winding-up of the company- Modes of Winding up of the Company- Compulsory Winding Up And Voluntary Winding Up. MST.
May	Revision

Sunita Mittal

INCOME TAX LAW -II (BC305)

SESSION - 2023-24

PROFESSOR - Anureet Bhatta

Months	Topics
January	Deductions out of gross total income, Computation of total income in regard to income of individuals. HUF.
February	Computation of total income in regard to income of Partnership firm & Companies.
March	Advance Payment of Tax; Deduction of tax at source, exemptions from TDS, Income tax authorities and administration of the act.
April	Assessment procedure, Appeals, Refunds and Penalties. E-Filing of Tax returns and a brief study of various ITR forms. MST
May	Revision

Anureet Bhatta

B.com 3rd year (5th Semester)

COST ACCOUNTING-I

Session- 2023-24

Professor- Sunita Mittal

Months	Topics
August	Cost Accounting: Meaning and definition, limitations of financial accounting, Development of Cost Accounting, Functions, Objectives, Advantages and Limitations of Cost Accounting, Importance of Cost Accounting to Business Concern. Relationship between Cost Accounting, Financial Accounting, and Management Accounting; Installing a Cost Accounting System, Essentials of a good Cost Accounting System. Cost concepts and classification; Preparation of cost sheet; Role of Cost Accountant in an organization;
September	Concept of Cost Audit; Accounting for Material : Concept, objectives and techniques of Material Control, Accounting and Control of Purchase, Storage and Issue of Materials; Methods of pricing material issues: FIFO, LIFO, HIFO, NIFO, simple average, weighted average method, replacement cost method, standard method, base stock method;
October	Treatment of Material Losses. Accounting for Labour : Labour cost control procedure; Labour turnover; Idle time and overtime; Methods of wage payment; Time and piece rates; Essentials of a good wage plan, Incentive schemes: Taylor's differential piece rate system, Halsey plan, Rowan Plan; Fringe benefits; Accounting for Overheads: Definition, Classification of Overheads: element-wise
November	Functional and behavioural; Need for classifying into fixed and variable; various types of overheads; Allocation and Apportionment of overheads; Absorption of overheads; Determination of overhead rates; Under and over absorption and its treatment; Treatment of special items of overheads like interest, depreciation, packing expenses, carriage expenses, machinery erection, tools, R&D, advertisement, bad debts etc. MST.
December	Revision

Sunita Mittal

May 9, 2024
पुंसीप
स.मे.र. (Punjab) का लाल
साहिबजी का अजीत सिंह नगर ।

B.com 3rd year (5th Semester)

Indirect Tax

Session- 2023-24

Professor- Rohini Devi

Months	Topics
August	Goods and Services Tax: Meaning, History, Nature & Scope and Definition; Taxes of Centre and State subsumed under GST, Comprehensive structure of GST Model: Kelkar Shah Model, Australian Model, New Zealand Model, Canadian Model ; Benefits and Limitations of GST. Registration, Procedure,
September	Amendments and Cancellation. Concept and Types, Time, Value and Place of Supply. Levy & collection of GST; GST Council & Administrative authorities. GST Portal & Network ; Input tax credit, Tax invoices Debit & Credit Notes and E-way Bill; Accounts and records, Return Assessment and Payments of tax, Inspection,
October	search and seizure, E way bill offences & penalties and Anti-Profiteering Rules, Appeal & Revision; Assessment under GST and Refunds ; Accounts Records and audit; Composition Scheme and Remission of Tax; GST Portal: GSTN, GSP (GST Suvidha Provider), GST Eco-System
November	, Latest Amendments in GST; Tax Deducted at Source(TDS) and Tax Collection at Source (TCS) Customs Act: Basic Concept, Types of Custom Duties, Methods of valuation of goods, Procedure for import & export, Levy and Exemptions from Custom Duty. MST.
December	Revision



B.com 3rd year (5th Semester)

MANAGEMENT ACCOUNTING-I

Session- 2023-24

Professor- Harpheet raw

Months	Topics
August	Management Accounting : Meaning, Definition, Nature, Objectives, Scope and Functions of Management Accounting, Management Accounting and Financial Accounting, Management and Cost Accounting; Utility of Management Accounting, Role of Management Accounting in decision making; Management Accounting Tools;
September	Advantages and Limitations of Management Accounting Financial Statements: Concept, Nature, Objectives of Financial Statements, Types of Financial Statements; Limitations of Financial Statements; Analysis and Interpretation of Financial Statements: Objectives, Types and Methods of Financial Statements Analysis.
October	Fund Flow Analysis: Concept of Funds, Sources and Uses of Funds, Concept of Flow, Funds Flow Statement, Managerial uses of Funds Flow Analysis Statement of Changes in working Capital, Funds Flow Statements. Cash Flow Analysis: Indian Accounting Standard – 3, Cash Flow Statement.
November	Comparative Statements, Common size statements, and Trend analysis. Ratio analysis : Meaning of Ratios, Classification of Ratios, Profitability ratios, Turnover ratios, Liquidity ratios, Solvency ratios; Calculation and interpretation of the ratios; Advantage of Ratio Analysis; Limitations of Accounting Ratios. MST.
December	Revision

Harpheet

B.com 3th year (5th Semester)

MONEY AND BANKING

Session- 2023-24

Professor- Navneet Kaur

Months	Topics
August	Money: Meaning, features, functions and kinds of money; Monetary Standards: Metallic and paper standards, system of note issues in India. Supply of money: mechanics of money supply, Measures of money supply in India, Demand for Money: Introduction
September	Demand for Money: Factors determining demand for money. Money and credit; Credit creation; Money Multiplier; Rate of Interest: Meaning and its determination, Factors affecting the level and structure of Interest Rates. An overview of interest rate structure in India.
October	Banking: Introduction, Types and functions of banks, Banking system: Branch Banking, unit banking, chain banking, group banking and mixed banking; Central Banking: Functions and techniques of credit control. Monetary policy: Objectives, and its tools; Reserve Bank of India: Role and Functions. Commercial Banking in India: Structure and functioning.
November	Commercial Banking in India: Structure and functioning. Banking Sector Reforms: Recommendations of Narasimham Committee, Basel II Norms, Revised NPA norms, Impact of reforms; Innovations in Banking: Important features of Internet Banking, E-Banking, Mobile banking, Universal Banking, Off-shore Banking, Real Time Gross Settlement, National Electronic Funds Transfer, Indian Financial System Code (IFSC).
December	Revision

Navneet Kaur

B.com 3th year (5th Semester)

PRINCIPLES OF MARKETING

Session- 2023-24

Professor- Navneet Kaur

Months	Topics
August	Introduction: Nature and scope of marketing; Importance of marketing; Marketing concepts-traditional and modern; Selling vs. marketing; Marketing mix; Marketing environment. Consumer Behaviour;
September	Market Segmentation; Nature, Scope, and significance of consumer behaviour; Market segmentation-Concept and importance; Basis for market segmentation. Product: Concept of product, Product planning and development; Packaging; Brand name and trade mark; After-sales service;
October	Product life cycle concept; Price: Importance of price in the marketing mix; Factors affecting price of a product/service; Discounts and rebates. Distributions channels: concept, types and role; Factors affecting choice of Distribution Channel; Retailer and wholesaler,
November	Physical distribution of goods; Transportation and Warehousing. Promotion: Method of Promotion; Optimum Promotion Mix; Advertising Media: Their relative merits and limitations; Characteristics of an effective advertisement; Personal selling; Selling as a Career; Functions of salesman.
December	Revision

Navneet Kaur

B.COM 3RD YEAR (5TH SEMESTER)

AUDITING (BC 505)

SESSION - 2023-24

PROFESSOR - Anuseet Bhatta

Months	Topics
August	Definition and Objectives of Auditing; Major Influences in the field of Auditing; Classes of Audit, Distinction between Audit and Investigation; Statements on Standard Auditing Practices (Brief Introduction only).
September	Audit planning, advantages and limitations of audit. Internal Control, Internal Check and Internal Audit.
October	Audit Procedure: Vouching: definition, features , examining vouchers, Vouching of Cash book, Vouching of trading transactions, Verification and Valuation of Assets & Liabilities: Meaning, definition and objects, Vouching vs. Verification . Verification: Valuation of different asset and liabilities
November	. Audit of Limited Companies: Company Auditor: Qualifications and disqualifications, Appointment, Removal, Remuneration, Rights, Duties and Liabilities. Audit Committee Auditor's Report : Contents and Types . Special Areas of Audit: Tax audit and Management audit, Recent Trends in Auditing MST
December	Revision

Anuseet Bhatta

B.com 3rd year (6th Semester)

MANAGEMENT ACCOUNTING-II

Session- 2023-24

Professor- Harpur Kan

Months	Topics
January	CVP Analysis: Introduction, CVP Assumptions and Uses; Break-Even Analysis: BE Point, Margin of Safety, and maintaining a desired level of profit; Graphical presentation of CVP Relationship; Profit Graph. Marginal Costing and Management Decisions – Marginal Costing vis-à-vis Absorption Costing;
February	Marginal and differential costing as a tool for decision making; Marginal Costing Techniques; Marginal Cost and Product Pricing; Change of Product Mix; Make or Buy Decisions; exploring new markets; Shut Down Decisions. Budgeting for Profit Planning and Control: Meaning of Budget and Budgetary control;
March	Objectives of Budgetary Control; Merits and Limitations; Types of Budgets: The budget manual, principal budget factor, preparation and monitoring procedures, preparation of functional budgets (Production, Sales, Materials), cash budget, (idea of master budget);
April	Fixed and flexible budgeting; Control ratios , Zero base budgeting; Performance budgeting; Responsibility accounting; Standard Costing and Variance Analysis: Meaning of Standard Cost and Standard Costing; Advantages and Application; Variance analysis: Material, Labour and Overhead Variances (two way analysis). MST.
May <i>Harpur</i>	Revision

Harpur Kan
पिंपरीपल,
स.भे.उ.प.नि.भे.सं.दि., सरकारी कार्यालय,
महाराष्ट्र शासनाचे अखंड मित्र नगर ।

B.com 3th year (6th Semester)
FUNDAMENTALS OF INSURANCE

Session- 2023-24

Professor- Navneet Kaur

Months	Topics
January	Introduction to Insurance: Purpose and need of Insurance; Insurance as a social security tool; Insurance and economic development, Principles of Insurance, Types of Insurance: Life, Non Life & Reinsurance.
February	Company Profile : Organizational set-up of the Company (including LIC, ICICI Prudential, HDFC Standard Life, TATA AIG, HDFC ERGO General Insurance Company, ICICI Lombard); Promotion Strategy; Market share; Important activities; Structure; Product; Product Pricing Actuarial aspects;
March	Distribution Channels; Fundamentals of Agency Law: Definition of an Agent; Procedure for becoming an Agent: Prerequisite for obtaining a license; Duration of license; Cancellation of license; Revocation of suspension/termination of agent's appointment; Code of conduct;
April	Unfair practices; Functions of the Agent: Proposal form and other forms for grant of cover; Financial and medical underwriting; Material information; Nomination and assignment; Procedure regarding settlement of policy claims.
May	Revision

Navneet Kaur

B.com 3th year (6th Semester)

INTERNATIONAL MARKETING

Session- 2023 - 24

Professor- Naveet Kaur

Months	Topics
January	International Marketing: Nature, Definition and Scope of International Marketing; International Marketing Environment; external and internal. Identifying and Selecting Foreign Market
February	Foreign Market entry mode decisions Product Planning for International Market: Product designing; Branding and packaging; Labelling and quality issues; After Sales Services. International Pricing: Factors influencing International price; Pricing Process.
March	Methods of Pricing; Methods of International Promotion; Direct Mail and Sales Literature; Advertising; Personal Selling: Trade Fairs and Exhibitions. International Distribution : Distribution Channels and logistic decisions;
April	Selection and appointment of foreign sales agents. Steps in starting an Export business; Product selection; Market selection; Export pricing; Export finance; Documentation; Export procedures; Export assistance and incentives
May	Revision

Naveet Kaur

B.com III year (6th Semester)

COST ACCOUNTING- II

Session- 2023-24

Professor- Sunita Mittal

Months	Topics
January	Cost Ascertainment: Unit Costing; job, batch and contract costing; Operating costing. Job Costing: Job cost cards and databases, Collecting direct costs of each job, Attributing overhead costs to jobs, Applications of job costing. Batch Costing. Contract Costing - Progress payments, Retention money, Escalation clause,
February	Contract accounts; Accounting for material, Accounting for plant used in a contract, Contract Profit and Balance sheet entries. Service Costing: meaning, service cost units, service cost analysis, application of service costing, service organisation. Process Costing : Meaning, Features, Process vs. Job Costing, Principles of cost ascertainment for Materials, Labour & Overhead;
March	Normal loss, Abnormal loss and gain and preparation of process accounts. Need for Valuation of WIP, Equivalent Production (units) and preparation of process and other relevant accounts valuing WIP under average method and FIFO method (simple cases). Inter-process profits, Accounting for joint,
April	Co and by products ; Cost Records: Integral and non-integral system; Reconciliation of Cost and Financial Accounts. Activity based Costing: Problems of traditional Costing, meaning of Activity Based Costing, cost analysis under ABC, advantages & disadvantages, factors influencing application of ABC, installation of ABC; Productivity, Value Analysis. MST.
May	Revision

Sunita Mittal

B.com 3rd year (6th Semester)

Business Environment

Session- 2023-24

Professor- Rohini Dew

Months	Topics
January	Business Environment: Concept, importance and components, Internal and external environment, Micro and macro variables: Income, Employment, Money Supply, Price Level, Interest rates, Savings and Investments, Trade and balance of payments. Movement and Interrelationship between different variables
February	Trends in Macro variables in India, Changing dimensions of business environment. Indian Planning: Basic strategy of Indian planning, Current five year plan: objectives and basic framework, Resource allocation in five year plans; Achievements and failures of Indian planning.
March	NITI Aayog: Role and functions, Organisational Structure. Economic Environment - Elements of economic environment, Economic Systems: Capitalism, Socialism and Mixed Economy; Role of Government: Growth and performance of public and private sector; Monetary and fiscal policy; New economic policy and its impact on Indian economy. Economic reforms, liberalization and structural adjustment programmes.
April	International Environment: International trading environment (overview); Trends in India's Foreign trade; Foreign trade and economic growth; International economic groupings. MST.
May	Revision

Rohini Dew

ਸ਼ਹੀਦ ਮੇਜਰ ਹਰਮਿੰਦਰਪਾਲ ਸਿੰਘ (ਸ਼ੈ.ਚ.) ਸਰਕਾਰੀ ਕਾਲਜ, ਸਾਹਿਬਜ਼ਾਦਾ ਅਜੀਤ ਸਿੰਘ ਨਗਰ

SHAHEED MAJOR HARMINDERPAL SINGH (Shaurya Chakra) GOVERNMENT COLLEGE, SAHIBZADA AJIT SINGH NAGAR

ਫੋਸ-6, ਸਾਹਿਬਜ਼ਾਦਾ ਅਜੀਤ ਸਿੰਘ ਨਗਰ (ਮੋਹਾਲੀ)-160056

Phone No. 0172-2225164

e-mail ID: principal.gemohali@gmail.com

Academic Calendar of Post Graduate Department of Fine Arts 2023-2024		
Odd Semesters- I, III & V (June-December)		
Activities/Event	Dates	Objective/Purpose
Orientation	First week of August	To assist incoming students with their transition to higher education and to inform them about the syllabus, learning outcomes, learning tools, and so on for the new class.
Commencement of Classes	First week of August	Formal delivery of Syllabus content as per Departmental Unitization Plan.
Tutorial Classes	Everyday in the last lecture	To increase students' academic achievement through additional mentoring, doubt clearing, and general learning help.
Monthly Test	Last week of every Month	A component of classroom learning evaluation in terms of achieving learning outcomes as outlined in the unitization plan.
Poster Making Competition	26th August, 2023	On August 26, 2023, the department organized a poster-making competition titled "Say No to Stubble Burning."
Talent Hunt	05 Sept, 2023	A talent hunt was organized by the department to shortlist students for the youth festival. It was beneficial to those who wanted to participate in Youth Fest.
A two-day cartooning workshop	September 21 and 22, 2023	Mrs. Gayatri (Assistant Professor). She demonstrated how to choose appropriate

Academic Calendar of Post Graduate Department of Fine Arts 2023-2024		
		moments for the scene and inject humor and puns into the narrative.
Portrait Painting workshop	23rd Sept, 2023	Mr. Kulwinder Singh (MFA Gold Medalist), a Tricity artist, gave a demonstration to the students. Mr. Kulwinder Singh showcased his expertise in various techniques, sharing valuable insights and tips with the student
Celebration of Gandhi Jayanti	02 October, 2023	The college conducted a cleanliness drive on October 2, 2023, in celebration of Gandhi Jayanti with the slogan "Clean India, Green India. The students prepared posters for the event.
Mid Semester Test	Beginning of November	A component of Internal Assessment for evaluating the learning progress through a formal exam of 50 marks.
Dispersal of Classes	Last Week of December	For students to have time for preparation for end-semester examinations.

Note: The dates may vary as per the instructions received from Punjabi University, Patiala regarding the commencement of the session and examination schedule.

ਸ਼ਹੀਦ ਮੇਜਰ ਹਰਮਿੰਦਰਪਾਲ ਸਿੰਘ (ਸ਼ੈ.ਚੱ.) ਸਰਕਾਰੀ ਕਾਲਜ, ਸਾਹਿਬਜ਼ਾਦਾ ਅਜੀਤ ਸਿੰਘ ਨਗਰ

SHAHEED MAJOR HARMINDERPAL SINGH (Shaurya Chakra) GOVERNMENT COLLEGE, SAHIBZADA AJIT SINGH NAGAR

ਫੇਸ-6, ਸਾਹਿਬਜ਼ਾਦਾ ਅਜੀਤ ਸਿੰਘ ਨਗਰ (ਮੋਹਾਲੀ)-160056

Phone No. 0172-2225164

e-mail ID: principal.gcmohali@gmail.com

Postgraduate Department of Fine Arts (2023-2024)

Subject	History of Art
Classes	M.A.I. (Paper -1) M.A.II (Paper -1 and 2) B.A.I. B.A.III
Name of Teacher	Kirandeep Kaur (Assistant Professor), History of Art

Paper: Art And Cultural History Of India (M.A. – I, Sem. I)

Learning Outcomes	
1.	The knowledge of art practices, particularly in painting, in India dates from the earliest times to Ca. 1850 A.D.
2.	The ability to read artworks in terms of style, socio-political contexts, and cross-cultural influences over time
3.	To understand the concept of the gradual development of humans and their relationship with artistic activities

Month-wise Unitization Plan

Session	Month	Topics from the Syllabus
July	August	Discussion concerning India's early architectural development and the gradual development of prehistoric paintings in the Bhimbetka Caves and Associated Caves Following the conversation, a documentary about each is screened. Images and videos to enhance understanding. Discussions on Buddhist practises have been prevalent in India at times, Beginning of manuscripts painting (Pala and Jaina)
	September	The formation of the Ajanta Caves Understanding the sociopolitical shifts and gradual inclination towards sculptural trends in the development of Ellora Caves Discussion of multiple cultures coexisting and patronage flow

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SHAHEED MAJOR HARMINDERPAL SINGH (Shaurya Chakra) GOVERNMENT COLLEGE, SAHIBZADA AJIT SINGH NAGAR

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	October	Political, geographical, and economic shifts occurred with the arrival of the Mughals, the introduction of miniature painting, the establishment of royal ateliers, and various foreign influences on art. Introduction to Rajasthani Painting Mid Semester Test and Assignments
	November	Introduction to the Pahari School of Painting. Establishment of Sikh painting and Company painting.
	December & January	Revision/Preparation of Exams

Note: Dates may vary as per the instructions received for the beginning of classes and the conduct of examinations by the university.

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Postgraduate Department of Fine Arts (2023-2024)

Paper: Art and Cultural History of Europe (M.A. II, Sem. III)

Learning Outcomes	
1.	The knowledge of art practices in Europe from the earliest to contemporary times.
2.	Over time, the students will have the ability to read artworks in terms of style, socio-political contexts, and cross-cultural influences.
3.	Students will learn about the founders of many 'isms' as well as various European, Dutch, Italian, Venetian, and German painters who established trends for future generations all over the world.

Month-wise Unitization Plan		
Session	Month	Topics from the Syllabus
July	August	Early Renaissance: introduction, formation, development, famous artists High Renaissance: Further development in techniques and subject matter, famous artists of the period. (covering- Italy, Venice, and North)
	September	Mannerism: change in painting technique, subject matter, and discussion of artists belonging to the 'ism'.
	October	Baroque Art: Introduction Mid Semester Test and Assignments
	November	Discussion on the famous artists of the Baroque period in class with the help of Visual aid such as images, videos, and documentaries on Smart Board in the dept.
	December & January	Revision/Preparation of Exams

Note: Dates may vary as per the instructions received for the beginning of classes and the conduct of examinations by the university.

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Post Graduate Department of Fine Arts (2023-2024)

Paper: Art And Cultural History Of India (Paintings and Sculptures- 1850 A.D.) (M.A. I, Sem II)

Learning Outcomes	
1.	The knowledge of art practices particularly in sculptures in India from 3300 B.C.E. to Ca. 1850 A.D.
2.	The ability to read artworks in terms of style, socio-political contexts and cross-cultural influences over time.
3.	To understand the concept of the gradual development of humans and their relation with artistic activities

Month-wise Unitization Plan		
Session	Month	Topics from the Syllabus
January	January	Final Exams of Sem - I
	February	Indus Valley Civilization: Social and geographical background, Material Culture such as pottery, beads, necklaces and sculptures. Mauryan Dynasty: Social background, artistic developments, the shift from painting towards sculptures. Shungs: development of Stupas in Sanchi, Bharut and Bodhgaya, sculptures of the Hinyana Phase in Buddhism.
	March	Khushana: Development of Mahayana Phase and sculptural trends of Mathura and Gandhara school. Guptas: Historical Background and further development in sculptures under their rule. Assignment and Mid-Semester Test
	April	South Indian Temple Structure and South Indian Bronzes. Visual Aids such as Short videos, Slides of Sculptures and Historical sites.
	May	Revision/Preparation of Exams

Note: Dates may vary as per the instruction received for the beginning of classes and the conduct of examinations by the University.

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Postgraduate Department of Fine Arts (2023-2024)

Paper: Art and Cultural History of Europe (from Renaissance up to 1877 A.D.) (M.A. – II, Sem. IV)

Learning Outcomes	
1.	The knowledge of art practices in Europe from the early 17 th century onwards
2.	Students will learn about the evolution of art during the Baroque and Romantic periods in several European cities.
3.	Students will have the ability to understand the Christian biblical subject matter and its popular demand among patrons.

Month-wise Unitization Plan		
Session	Month	Topics from the Syllabus
January	January	Final Exams of Sem - III
	February	Baroque in Holland, France Rococo art.
	March	Neo-Classicism and Romanticism in Spain and France. Assignments, Presentations and Mid-Semester Test
	April	Approach to Landscape in England by Turner and Constable Realism, its features and characteristics
	May	Revision/Preparation of Exams

Note: Dates may vary as per the instructions received for the beginning of classes and the conduct of examinations by the university.

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Postgraduate Department of Fine Arts (2023-2024)

Paper: Modern Movements in Art (M.A. Sem. IV)

Learning Outcomes	
1.	Knowledge of various aspects of modern art prevailing in the West and the East.
2.	Understanding the difference between the core concepts and values of occidental and oriental art.
3.	Students will comprehend the significant impact and influence that Western art had on Indian art and contemporary artists.

Month-wise Unitization Plan		
Session	Month	Topics from the Syllabus
January	January	Final Exams of Sem - III
	February	The difference and development of abstract art and abstract expressionism Modern art in Bengal and the establishment of Bengal Group
	March	Kinetic art, Pop Art. Emerging artists of Modern art in India; Nandlal Bose, Raja Ravi Varma, Amrita Shergill. Assignment, Presentations and Mid-Semester Test
	April	Op Art, Conceptual Art. P.A.G. Group, Chola Mandala Artists and Calcutta Group.
	May	Revision/Preparation of Exams

Note: Dates may vary as per the instructions received for the beginning of classes and the conduct of examinations by the university.

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Postgraduate Department of Fine Arts (2023-2024)

Subject: Fine Arts (B.A. – I, Sem. I)

Learning Outcomes

1.	Students will learn about major ancient Indian art periods and their important sculptures.
2.	Students will be able to recognize and describe key monuments and artworks from each period.
3.	Students will understand basic historical development of Indian art in simple terms

Month-wise Unitization Plan

Session	Month	Topics from the Syllabus
July	August	Indus Valley Civilization – Brief history. Mauryan Period– Brief history.
	September	Bharhut Stupa and Sanchi Stupa – Brief history
	October	Amravati Stupa- Brief history and characteristics with special reference to ‘Taming of Nalagiri Elephant’. Mathura Period – Brief introduction to history with special reference to Katra Buddha, Bodhisattva Maitreya, Statue of Kanishka.
	November	Gandhara Period – Brief history with characteristic study of Fasting Buddha and Mahaparinirvana relief. Mid Semester Test
	December & January	Revision + Internal Assessment. Final Exams of Semester I.

Note: Dates may vary as per the instructions received for the beginning of classes and the conduct of examinations by the university.

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Postgraduate Department of Fine Arts (2023-2024)

Subject: Fine Arts (B.A. – I, Sem. II)

Session	Month	Topics from the Syllabus
January	January	Final Exams of Sem - I
	February	Pre-Historic Cave Paintings – Introduction, Subject Matter, Material and Technique. Ajanta – Introduction, subject matter and aesthetic appreciation of Avalokiteshvara, Mother and Child before Buddha and Visvantara Jataka.
	March	Bagh Caves – Brief history, special characteristics with reference to ‘A Group of Dancers’ Elements of Art – Line, Form, Color, Tone, Texture, Space.
	April	Principles of Art – Unity, Rhythm, Balance, Emphasis, Variety, Proportion, Movement, Perspective, composition. Mid Semester Test
	May	Revision / Preparation of Exams.
	June	Summer Break

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Postgraduate Department of Fine Arts (2023-2024)

Subject: Fine Arts (B.A. III) Sem. V

Month-wise Unitization Plan		
Session	Month	Topics from the Syllabus
July	August	Introduction to Modern Indian Painting. Kalighat Paintings – Theme, style and characteristics
	September	Company School of Art, Bengal School of Art – Abanindranath Tagore, Nand Lal Bose Modern Indian Artists: Rabindranath Tagore, Amrita Sher-Gil, Jamini Roy, Raja Ravi Varma
	October	Theory of Rasa and Bhava, The Concept of Beauty
	November	Art and Society, Art and Religion Indian Artists: Sobha Singh, S.G. Thakur Singh, Mid Semester Test
	December & January	M.F. Hussain, Satish Gujral, Dhanraj Bhagat Final Exams of Semester I.

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Postgraduate Department of Fine Arts (2023-2024)

Subject: Fine Arts (B.A. III, Sem-VI)

Session	Month	Topics from the Syllabus
January	January	Final Exams of Sem - I
	February	Impressionism, Post-Impresionism. (Brief Introduction, history and characteristics)
	March	Expressionism and Cubism (Brief Introduction, history and characteristics)
	April	Surrealism (Brief Introduction, history and characteristics)
	May	Abstract Art (Brief Introduction, history and characteristics) Mid Semester Test Revision
	June	Summer Break

Note: Dates may vary as per the instruction received for the beginning of classes and the conduct of examinations by the University.



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Post Graduate Department of Fine Arts

Unitization of Syllabus for Classes: MA2, BA2, BA3 (2023-24)

TEACHER'S NAME: GAYATRI SINGH

Unitization of Syllabus for BA Sem -3 (Theory & Practical), BA Sem-5 (Practical) and MA Sem 3 (paper -4)

	Learning Outcomes
1.	Learning and developing skill to Draw and Paint Portraiture, Landscapes and Poster etc. Understanding of Anatomy and Gesture Drawing through Figure Study to develop skills as a sketch artist, Illustrator and digital artist.
2.	Knowledge of Sculptures from Gupta Period to Chola Period with Study of Mudras and Asanas
3.	Developing Skill to understand Landscape Painting in variety of mediums like Oil Paints, Acrylics, Watercolor etc.

Month Wise Unitization Plan

1.	MA 2 SEM3 PAPER 4 PAINTING FROM LIFE (100 MARKS)	JULY	ADMISSIONS
2.	BA2 SEM 3 THEORY (30 MARKS)AND PRACTICAL(60 MARKS)		ADMISSIONS
3.	BA3 SEM 5 PRATICAL(60 MARKS)		ADMISSIONS
1.	MA 2 SEM3 PAPER 4 PAINTING FROM LIFE	August	Study of human body is demonstrated through sketching Study of human head, hands, feet is demonstrated. Study of anatomical details of human body, male and female figures from life in different poses in different angles. Demonstration of Figure study through Oil Color to suggest skin tones
2.	BA2 SEM 3 THEORY AND PRACTICAL		Teaching of UNIT 1 of SECTION A (Theory) POSTER MAKING (Practical) Introduction to letter writing with brush, in all three languages Punjabi, English and Hindi, various fonts to be taught through demonstration.
3.	BA3 SEM 5 PRACTICAL		POSTER MAKING (Practical) Introduction to letter writing with brush with various fonts through demonstration. Letter writing in all three languages Punjabi, English and Hindi.
1.	MA 2 SEM3 PAPER 4 PAINTING FROM LIFE	September	Demonstration of Figure study in Oil, Gesture Drawing, Sketching demonstrations MST
2.	BA2 SEM 3 THEORY AND PRACTICAL		Teaching of UNIT 2 of Section A (Theory) Demonstration of head study in different view point, postures, Color demonstration in Pencil Color MST



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3.	BA3 SEM 5 PRACTICAL		Demonstration of Life Study through sketching and Color Pencils MST
1.	MA 2 SEM3 PAPER 4 PAINTING FROM LIFE	October	Demonstration of Figure study from live models, from great artists works
2.	BA2 SEM 3 THEORY AND PRACTICAL		Demonstration of head study in Oil Pastel Teaching of Section B
3.	BA3 SEM 5 PRACTICAL		Demonstration of Life Study
1.	MA 2 SEM3 PAPER 4 PAINTING FROM LIFE	November	Demonstration of Figure study through sketching Teaching of Section B REMEDIAL CLASSES FOR SLOW LEARNERS
2.	BA2 SEM 3 THEORY AND PRACTICAL		Demonstration of head study REVISION OF THEORY REMEDIAL CLASSES FOR SLOW LEARNERS
3.	BA3 SEM 5 PRACTICAL		Demonstration of Life Study in Oil color REMEDIAL CLASSES FOR SLOW LEARNERS
		December	EXAMS



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Post Graduate Department of Fine Arts

Unitization of Syllabus for Classes: MA2, BA2, BA3 (2023-24)

TEACHER'S NAME: GAYATRI SINGH

Unitization Of Syllabus for BA Sem -4 (Theory & Practical), BA Sem-6 (Practical) and MA Sem 4 (paper -4)

	Learning Outcomes
1.	Learning and developing Skill to Draw and Paint Portraiture, Landscapes, Poster
2.	Knowledge of Sculptures from Gupta Period to Chola Period with Study of Mudras and Asanas
3.	Developing Skill to understand Figure Study in variety of mediums like Oil Paints, Acrylics, Charcoal etc.

Month Wise Unitization Plan

1.	MA 2 SEM4 PAPER 4 PAINTING FROM LIFE	January	Final Exams
2.	BA2 SEM 4 THEORY AND PRACTICAL		Final Exams
3.	BA3 SEM 5 PRACTICAL		Final Exams
1.	MA 2 SEM4 PAPER 4 PAINTING FROM LIFE	February	Study of various gestures of human body, display of muscles and tendons in humans. Various studies suggesting complexion of the model. Gesture Drawing , Drawing in different mediums such as Oil, Acrylics, Charcoal etc.
2.	BA2 SEM 4 THEORY. AND PRACTICAL		Teaching of Theory Section A, Part 1 Demonstration of Landscape in Acrylic and Watercolor
3.	BA3 SEM 5 PRACTICAL		Demonstration of Landscape in Acrylic and Watercolor Demonstration of Figure Study in Oil/Watercolor/Acrylic
1.	MA 2 SEM4 PAPER 4 PAINTING FROM LIFE	March	Demonstration of Figure Study in various mediums like charcoal, Oil Pastels, Watercolor to make students understand different dimension of color in figure Study Class Test
2.	BA2 SEM 4 THEORY AND PRACTICAL		Teaching of Theory Section A, Part 2&3 Demonstration of Landscape in Acrylic and Watercolor Demonstration of Figure Study in Oil/Watercolor/Acrylic Class Test
3.	BA3 SEM 5 PRACTICAL		Demonstration of Landscape in Acrylic and Watercolor Demonstration of Figure Study in Oil/Watercolor/Acrylic Class Test
1.	MA 2 SEM4 PAPER 4 PAINTING FROM	April	Demonstration of Figure Study in various mediums like charcoal, Oil Pastels, Watercolor to make students understand different dimension of



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	LIFE		color in figure Study MST REMEDIAL CLASSES FOR SLOW LEARNERS
2.	BA2 SEM 4 THEORY AND PRACTICAL		Teaching of Theory Section A, Part 4 MST Demonstration of Landscape in Acrylic and Watercolor Demonstration of Figure Study in Oil/Watercolor/Acrylic MST REMEDIAL CLASSES FOR SLOW LEARNERS
3.	BA3 SEM 5 PRACTICAL		Demonstration of Landscape in Acrylic and Watercolor Demonstration of Figure Study in Oil/Watercolor/Acrylic MST REMEDIAL CLASSES FOR SLOW LEARNERS
		May	FINAL EXAMS



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UNITIZATION OF SYLLABUS (2023-24)

TEACHER'S NAME: SONIA SHARMA

Classes: MA1 sem1,MA2 sem2 , BA1 sem1

SUBJECT: FINE ARTS

1.	MA 1 SEM 1 PAPER 3 PORTRAIT PAINTING (100 MARKS)	JULY	ADMISSIONS
2.	MA2 SEM-3 PAPER 3 CREATIVE COMPOSITION(100 MARKS)	JULY	ADMISSIONS
3.	BA1 SEM 1 PRACTICAL(50 MARKS)	JULY	ADMISSIONS
	MA 1 SEM 1 PAPER 3 PORTRAIT PAINTING (100 MARKS)	August	Demonstration of basics of sketching Study of human head, eyes, nose, ears, lips Study of basics of head , male and female faces in different angles. Demonstration of head study through Oil Color to suggest skin tones
	MA2 SEM-3 PAPER 3 CREATIVE COMPOSITION(100 MARKS)	August	Demonstration of basics of a good composition Study of various nearby elements still and live Sketching of figures from different angles
	BA1 SEM 1 PRACTICAL(50 MARKS)	August	Introduction of basic tools for drawing and sketching Demonstration of shading in any shape Introduction of 2d and 3d shading of still objects Sketching of eyes ,nose, ears, lips and basics of face
	MA 1 SEM 1 PAPER 3 PORTRAIT PAINTING (100 MARKS)	September	Demonstration of live portrait in Oil. Practice of sketching of portrait of different age groups from different angles
	MA2 SEM-3 PAPER 3 CREATIVE COMPOSITION(100 MARKS)	September	Composition on canvas on topic MUSIC Composition on canvas on topic landscape Sketching of variety of elements on sketch books
	BA1 SEM 1 PRACTICAL(50 MARKS)	September	Demonstration of still life on half cartridge sheet with oil pastels Study of 2 still life on half cartridge sheet with oil pastels Study of 2 head studies on half sheet with pencil shading
	MA 1 SEM 1 PAPER 3 PORTRAIT PAINTING (100 MARKS)	October	Study of portrait of female modal on canvas Study of portrait of male modal on canvas Practice of sketching of different angles of face
	MA2 SEM-3 PAPER 3 CREATIVE COMPOSITION(100 MARKS)	October	Composition on canvas on topic VILLEGE SCENE Composition on canvas on topic conversation Sketching of different elements on sketch books
	BA1 SEM 1 PRACTICAL(50 MARKS)	October	Study of 2 still life on half cartridge sheet with oil pastels Study of 2 head studies on half sheet with pencil shading Practice of sketching of different angles of face

	MA 1 SEM 1 PAPER 3 PORTRAIT PAINTING (100 MARKS)	November	Study of portrait of female modal on canvas Study of portrait of male modal on canvas Practice of sketching of different angles of face
	MA2 SEM-3 PAPER 3 CREATIVE COMPOSITION(100 MARKS)	November	Composition on canvas on topic music Sketching of different elements
	BA1 SEM 1 PRACTICAL(50 MARKS)	November	Practice of sketching of different angles of face Sketching and shading of still objects
		December	EXAMS

UNITIZATION OF SYLLABUS 2023-24 Classes: MA1 -SEM 2,MA2 -SEM 4,BA1 -SEM 2.

SUBJECT: FINE ARTS

1.	MA 1 SEM 2 PAPER 3 PORTRAIT PAINTING (100 MARKS)	January	HOLIDAYS AND EXAMS
	MA2 SEM-4 PAPER 3 CREATIVE COMPOSITION (100 MARKS)	January	EXAM
	BA1 SEM 2 PRACTICAL(50 MARKS)	January	EXAM
	MA 1 SEM2 PAPER 3 PORTRAIT PAINTING (100 MARKS)	February	Sketching of portrait of different age groups Portrait on canvas using oil and acrylic colors
	MA2 SEM-4 PAPER 3 CREATIVE COMPOSITION (100 MARKS)	February	Sketching of different elements indoor and outdoor using variety of mediums Composition on canvas on topic Spring season

	BA1 SEM2 PRACTICAL(50 MARKS)	February	Demonstration of outdoor Landscape in Acrylic and Watercolor Sketching of heads from different angles
	MA 1 SEM 2 PAPER 3 PORTRAIT PAINTING (100 MARKS)	March	2 Portrait painting on canvas in oil and acrylic colors Sketching of portrait of different age groups using charcoal and colored pencils
	MA2 SEM-4 PAPER 3 CREATIVE COMPOSITION (100 MARKS)	March	Sketching of different elements indoor and outdoor using variety of mediums Composition on canvas on topic sisters Composition on topic harmony
	BA1 SEM 2 PRACTICAL (50 MARKS)	March	2 Landscapes in Acrylic and Watercolor 2 Head studies on half sheet with pencil shading
	MA 1 SEM2 PAPER 3 PORTRAIT PAINTING (100 MARKS)	April	2 Portrait paintings on canvas in oil and acrylic colors Sketching of portrait of different age groups using charcoal and colored pencils
	MA2 SEM-4 PAPER 3 CREATIVE COMPOSITION (100 MARKS)	April	Sketching of different elements indoor and outdoor using variety of mediums Composition on canvas on topic Bird Seller Composition on topic Rhythm
	BA1 SEM 2 PRACTICAL (50 MARKS)	April	2 Landscapes in Acrylic and Watercolor 2 Head studies on half sheet with pencil shading
		May	EXAMS

LEARNING OUTCOMES

Department of Fine Arts (Drawing & Painting)

UG & PG Classes

Programme Outcomes (POs)

- PO1: Apply advanced drawing and painting techniques using traditional and contemporary media.
- PO2: Analyze and interpret artworks critically within socio-cultural contexts.
- PO3: Conduct research integrating theory and studio practice (especially at PG level).
- PO4: Communicate artistic ideas effectively through visual, written, and oral forms.
- PO5: Utilize digital tools and emerging technologies in art practice.
- PO6: Demonstrate ethical awareness and sensitivity toward cultural heritage and society.
- PO7: Develop professional skills, portfolio preparation, and entrepreneurial competence.
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Programme Specific Outcomes (PSOs) – Drawing & Painting

- PSO1: Develop mastery in drawing including life study, portrait, and composition.
- PSO2: Demonstrate proficiency in watercolor, oil, acrylic, and mixed media painting.
- PSO3: Integrate theoretical knowledge with creative studio practice.
- PSO4: Produce original artworks reflecting conceptual clarity and personal expression.
- PSO5: Participate professionally in exhibitions, workshops, and academic forums.

Course Outcomes (General)

- CO1: Understand elements and principles of design in visual composition.
- CO2: Apply observational and creative drawing skills effectively.
- CO3: Use color theory and painting techniques proficiently.
- CO4: Analyze historical and contemporary artworks critically.
- CO5: Develop independent research and conceptual projects (PG level).

Session - (2023-2024)
Class - B.Sc.I Sem-1
Subject - Botany
Unitization of Syllabus

August

Basic characteristics of algae; habitat, range of thallus, algal cell structure, photosynthetic pigments, cell wall, flagella, reserves food materials and nutrition; lifecycle pattern, classification, and economic importance of algae. Important features and life history of Chlorophyceae – Volvox, Oedogonium,

September

Xanthophyceae- Vaucheria, Phaeophyceae- Ectocarpus, Sargassum, Rhodophyceae- Batrachospermum. Viruses: General characters, structure, classification and replication of viruses, importance of viruses, a brief account of Mycoplasma.

Fungi and Fungi like organisms: General characters. Classification and economic importance; important features and life history of members of Kingdom Chromista: Phytophthora.

October

Kingdom Fungi: Zygomycota-Mucor; Ascomycota- Saccharomyces, Pencillium and Peziza.

Important features and life history of Basidiomycota,

Mitosporic Fungi and Lichens – Puccinia, Ustilago, Agaricus; Cercospora, Colletotrichum. Lichens Structure, morphology, reproduction and economic importance.

Bacteria- A general account with particular reference to ultra-structure, classification, mode of reproduction, nutritional types and economic importance

General account of cyanobacteria with emphasis on Oscillatoria.

November

Bryophyta: Amphibians of Plant Kingdom displaying alternation of generations structure, reproduction and affinities of Marchantia (Hepaticopsida) Anthoceros (Anthocerotopsida); Funaria (Bryopsida) - developmental stages are excluded. Evolution of sporophytes in Bryophytes. Pteridophyta: The first vascular plants: important characteristics, structure and reproduction of Psilopsida (Rhynia); Lycopsida (Selaginella); Sphenopsida (Equisetum) and Pteropsida (Pteris and Marsilea) – developmental stages are excluded. Evolution of stellar system in Fern-allies and Ferns.

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Session - (2023-2024)
Class - B.Sc.I Sem-2
Subject - Botany
Unitization of Syllabus

January

General Structure of Cell: Structure and function of nucleus: Ultrastructure of nuclear membrane, nuclear pore; nucleolus

Structure and function of cell organelles: Mitochondria, Plastids, Ribosomes, Golgi Body, Endoplasmic Reticulum, Peroxisomes, Vacuoles. Extranuclear genome: Presence and function of mitochondrial and plastid DNA.

February

Chromosome organization: Morphology; centromere and telomere; chromosome alterations – deletions, duplications, translocations, inversions. Variations in chromosome number – aneuploidy, polyploidy. Sex chromosomes.

The cell envelope: Structure, composition and functions of cell wall and plasma membrane in microbes and plants.

DNA the genetic material: DNA structure; replication; DNA – protein interaction the nucleosome model. Genetic code, satellite and repetitive DNA, Cell division: Mitosis, meiosis.

March

Genetic inheritance: Mendelism, laws of segregation and independent assortment linkage analysis; allelic and non-allelic interactions.

Gene expression: Structure of gene; transfer of genetic information—transcription, translation, protein synthesis; regulation of gene expression in prokaryotes and eukaryotes.

Proteins structure; Genetic Variations: Mutations – spontaneous and induced transposable genetic elements.

April

Brief account of origin of life, evolutionary theories of Lamarck, Darwin and DeVries, evidences for organic evolution

Mandeep Kaur

Session - (2023-2024)
Class - B.Sc.II Sem-3
Subject - Botany
Unitization of Syllabus

August

General features of gymnosperms and their classification.

General characters of Cycadales. Morphology, anatomy, reproduction and life cycle of *Cycas*
Origin and evolution of Angiosperms giving suitable examples. Primitive and advanced characters of Angiosperms.

Classification of angiosperms: salient features, comparison, merits and demerits of the classification systems proposed by Bentham and Hooker and Engler and Prantl.

Diagnostic features, technical description and taxonomic significance of flowering plants as illustrated by members of families Ranunculaceae, Brassicaceae,

September

General characters of Coniferales and Ephedrales. Morphology, anatomy, reproduction and life cycle of *Pinus*, *Ephedra* and *Gnetum*.

Families Malvaceae, Rutaceae, Fabaceae, Apiaceae, Cucurbitaceae, Rosaceae, Apocynaceae, Asclepiadaceae, Solanaceae

October

Angiosperm taxonomy: brief history, aims and fundamental components taxonomy, taxonomy and taxonomy identification keys. International code of Botanical nomenclature: Principles and rules; taxonomic ranks; type concept.

General features of gymnosperms and their classification; fossil gymnosperms *Pentoxylon*, *Cordaites*, *Bennettites*, *Glossopteris*, *Lyginopteris*, *Williamsonia*, Distribution, Cytology and Economic Importance of Indian Gymnosperms.

November

Families Lamiaceae, Euphorbiaceae, Asteraceae, Liliaceae and Poaceae.

Reproduction and life cycle of *Gnetum*

General characters of Pro-Gymnosperms, morphological features of *Arachaeopteris* and *Aneurophyton*.

Mandeep Kaur

Session - (2023-2024)
Class - B.Sc.II Sem-4
Subject - Botany
Unitization of Syllabus

January

Tissue Systems: Epidermal: Structure and types of stomata, idioblasts, trichomes, nectaries, hydathodes. Fundamental: parenchyma, collenchyma, and sclerenchyma Vascular system.

Flower: a modified shoot; structure, development of flower; Inflorescence types of structure of anther and pistil.

February

The shoot system: The shoot apical meristem and its histological organization. Anatomical details of Dicot and Monocot stems.

Male and female gametophytes types of pollination; pollen-pistil interaction, self-incompatibility, double fertilization.

March

The root system: the root apical meristem and its histological organization anatomical details of Dicot and Monocot roots.

Leaf: Anatomy in Dicots and Monocots and modification with special reference to their function.

Post fertilization changes, endosperm and embryo development; seed development, structure and dispersal; dormancy fruit development and types of fruit.

April

Cambium and its functions. Secondary growth including anomalous secondary growth

Vegetative Reproduction: Various methods of vegetative propagation and applications in floriculture and horticulture.

Mandeep

Session - (2023-2024)
Class - B.Sc.III Sem-5
Subject - Botany
Unitization of Syllabus

August

Plant-water relations: Importance of water to plant life; diffusion and osmosis. absorption, transport of water and transpiration; mechanism of stomatal opening and closing.

Mineral nutrition: Essential macro- and micro- elements and their role; mineral uptake deficiency and toxicity symptoms.

Transport of organic substances: Mechanism of phloem transport; source-sink relationship, factors affecting translocation.

September

Basics of enzymology: Discovery and nomenclature; characteristics of enzymes concepts of holoenzyme, apoenzyme, coenzyme and cofactors; regulation of enzyme activity; mechanism of action; St seium of lipids--oxidation.

Growth, phases of growth, growth kinetics; plant hormones: discovery, bioassay, physiological effects and application of auxins, gibberellins, cytokinins, abscisic acid and ethylene

Photosynthesis: Significance; historical aspects; photosynthetic pigments; action spectra and enhancement effect; concept of two photosystems; Z-scheme, photophosphorylation; Calvin cycle; C4 pathway; CAM plants; photorespiration.

October

Respiration: ATP- the biological energy currency; aerobic and anaerobic respiration, Kreb's cycle, electron transport mechanism (chemi-osmotic theory) redox potential, oxidative phosphorylation, pentose phosphate pathway.

Nitrogen Fixation : Symbiotic and Asymbiotic, Nitrogen fixation, Mechanism of Nitrogen fixation; mechanism of nodule formation, Assimilation of fixed Nitrogen.

Lipid : Structure and function of lipids; oxidation.

Photomorphogenesis, discovery, structure, physiological role and mechanism of action of phytochrome and cryptochrome.

Photoperiodism, vernalization, biological clocks, physiology of senescence and abscission.

Physiology of seed dormancy and seed germination; plant movements.

November

Tools and techniques of recombinant DNA technology with special reference to restriction enzymes, gel electrophoresis, Southern blotting, cloning vectors and PCR. Genomic and cDNA library.

Methods of G transfer in plants: physical, chemical and biological methods.

Basic concept of plant tissue, culture, totipotency, micropropagation, anther culture, embryo culture, synthetic seeds and somatic hybridization.

Plant Biotechnology and its application in human welfare with particular reference to industry, agriculture and molecular farming.

Mandeep Kaur

Session - (2023-2024)
Class - B.Sc.III Sem-6
Subject - Botany
Unitization of Syllabus

January

Concept of ecology and its scope. Environmental factors: climatic, edaphic, topographic and biotic, Shelford's law of tolerance.

Population ecology: Characteristics, positive and negative interaction, growth forms, carrying capacity, ecotypes and ecads.

Community ecology: Community characteristics, frequency, density and abundance, cover, life forms. Ecological succession (Hydrosere, Xerosere). Gause's principle of competitive exclusion.

February

Structure and concept of ecosystem, ecological pyramids, food chain, food web, ecological energetics, ecological productivity.

Environmental issues: Brief idea of air, water, noise and soil pollution. Global warming and ozone depletion. International efforts for mitigation of global climate change.

Biodiversity: Introduction and Importance of Biodiversity; Elements of Biodiversity;

Genetic, species and ecological diversity. Conservation strategies, concept of hot spots, biomes, phytogeographic regions of India, vegetation types (Forests, Grasslands, Deserts and Wetlands).

Ecological adaptations in xerophytes, hydrophytes and halophytes.

Biogeochemical cycles with particular reference to C, N and P

The importance and nature of plant products; fibres: surface fibres (cotton), soft fibres (Jute), hard fibres (Coir). Forest products: Wood, properties, seasoning and importance, important timber plants of India.

March

Brief history of origin of food plants; cultivation practice and recommended varieties of wheat, rice, maize and sugarcane with particular reference to Punjab.

Cultivation practices and use of soyabean, sunflower, mustard, groundnut and coconut.

Vegetables and Fruits: Botanical name, family, season and area of cultivation of potato, tomato, brinjal, carrot, ladyfinger, pea, mango, apple, banana, guava, kinnow and grapes.

Spices: General account pertaining to botanical name, family and part used in case of clove, cardamom, black pepper, turmeric, cumin and ginger.

April

Medicinal Plants: General account pertaining to botanical name, family, part used and active principle in case of belladonna, neem, tulsi, stevia, rauwolfia, ashwagandha and glycyrrhiza.

Beverages and Narcotics: Cultivation practices, botanical name, family and active ingredients of tea and coffee. Cannabis, tobacco and opium.

Rubber: Major sources, cultivation, processing and uses of Para rubber.

Mandeep Kaur