

SCHOOL OF ARTS AND SCIENCE

DEPARTMENT OF FOOD SCIENCE

B.SC NUTRITION AND DIETETICS

SYLLABUS I AND II SEMESTER (R2023)

		SEI	MESTER – I							
91	Course		Category	Р	erio	ds			Max.Ma	arks
No	Code	Course Title	Gategory		T	Ρ	Credits	CAM	ESM	Total
Theo	Theory									
1	A23TAT101C / A23FRT101C	Tamil – I /French -I	MIL	3	0	0	3	25	75	100
2	A23GET101C	General English – I	ENG	3	0	0	3	25	75	100
3	A23NDT101D	Nutrition Science – I	DSC	4	0	0	4	25	75	100
4	A23NDT102D	Food Science	DSC	4	0	0	4	25	75	100
5	A23CHD102D	Basic Chemistry for Food Science	IDC	4	0	0	4	25	75	100
Prac	tical	·								
6	A23NDL101D	Food Science Practical	DSC	0	0	4	2	50	50	100
7	A23CHI102D	Basic Chemistry for Food Science Practical	IDC	0	0	4	2	50	50	100
Skill	Enhancement Cou	rse	I							
8	A23ENSA02C	Soft Skills	SEC	2	0	0	2	100	0	100
Abili	ty Enhancement Co	burse								
9	A23AETA01C	Public Administration	AEC	2	0	0	1	100	0	100
Emp	loyment Enhancem	ent Course		-			-			
10	A23NDC101D	MS EXCEL	EEC	0	0	4	0	100	0	100
	·	•					25	525	475	1000

		SEMI	ESTER-II								
SINo	Course Code	Course Title	Category	F	Peric	ods	Credits	Max.Marks			
				L T P			CAM	ESM	Total		
1	A23NDT203D	Nutrition Science – II	MJD	4	0	0	4	25	75	100	
2	A23NDT204D	Human Physiology	MJD	4	0	0	4	25	75	100	
3	A23CPD201D	Computer Applications in Nutrition and Dietetics	MID	0 4 0 0			4	25	75	100	
4	A23ENSA03C	Communication Skills	MLD	3	0	0	3	25	75	100	
5	A23TAT202C/ A23FRT202C	Tamil – II /French -II	AEC	AFC 3 0 0			2	25	75	100	
6	A23GET202C	General English-II	AEC	3	0	0	2	25	75	100	
7	A23NDL202D	Nutrition Science Practical	SEC	0	0	6	3	50	50	100	
8	A23NDL203D	Human Physiology Practical	SEC	0	0	6	3	50	50	100	
9	A23VAC201C	Understanding India	VAC	2	0	0	2	100	0	100	
10	A23VAC202C	Environmental Studies	VAC	2	0	0	2	100	0	100	
L	Employment Enhancement Course										
11	A23NDC202D	Android App Development	EEC	0	0	4	0	100	0	100	
	29 550 550 1100										

SEMESTER I

Department French Programme : BSc. Nutrition and Dietetics										
Sei	mester	I		Cours MIL	e Catego	ory Code:	*End S	emester	⁻ Exam T	ype: TE
Со	urse Code	A23FF	RT101C		Periods/	/Week	Credit	Ma	aximum	Marks
<u> </u>			~~~	L		P	ر م		ESE	IM 100
Co	urse Name	FRENG		3	0	0	3	25	/5	100
	(Co	mmon	to B.A., B.SC., and BCA Branches)							
Pre	erequisite	Frer	ich language in class 12 th						1	
Со	urse Objectives	To in	roduce the basics of French language to	the students						
		To er	able the students to read, understand ar	nd write simp	le senter	ices				
		To he	Ip them to grasp the fundamentals of Fro	ench gramma	r					
		To m	ake the students to formulate correct ph	rases						
		To in	reduce them Erench and Erencenhone c	ountries and	thair cult					
		10 m	roduce them French and Francophone c	ountries and	their cuit	ures				
		On co	ompletion of the course, the students wi	ll be able to					BT Ma (Highes	apping st Level)
		CO1	have a general understanding of the lan	guage					к	1
<u></u>		CO2	analyze and interpret simple phrases wr	itten in Frenc	h				к	2
	urse	CO3	have the basics of French grammar						к	3
Ou	licomes	CO1	communicate and ask basic questions in	French lang	lage				ĸ	
			annreciate the diversity and multiplicity	of French and	d Erancou	ahone wo	d		n V	·
		CU5 S'int	appreciate the diversity and multiplicity			JIIONE WO	Dorioda	••••		.5
	Le français les	Eranca	ic la France				Penious	.09		
1. 2	le m'annelle Fli	se et v								
3.	Saluer, se prese	enter, r	emercier							CO1
4.	Vous dansez ? [, D'accor	d							
5.	Interroger quel	qu'un e	et donner des informations							
UN	IIT-II	Dema	nder des questions sur quelqu'un				Periods	:09		1
1.	Monica, Yokiko	et con	pagnie							CO2
2.	Dire ce qu'on l'a	aime								
3.	Les voisins de S	ophie								
4.	Demander des	inform	ations sur quelqu'un							
UN	/IT-III	Expliqu	er quelque chose				Periods	:09		
1.	Tu vas au Luxer	nbourg	?							
2.	Dire où on va, c	lire d'o	ù on vient							CO3
3.	Nous venons po	our l'in	scription							
4. r	A velo, en train	, en av	on							
Э. П I I I		Doco	, proposer queique chose				Dorioda	.00		<u> </u>
	Dardan monsion						Perious	.09		CO 4
1. 2		ui, ie b	riv s li vous plait							C04
3.	Acheter quelqu	e chos	e, demander le prix							
4.	On déjeune ici î	?								
5.	Aller au restaur	ant, co	mprendre un menu							
UN	IIT-V	Invite	r et proposer quelque chose				Periods	:09		-
1.	On va chez ma	copine	?							0.05
2.	Proposer quelq	ue cho	se							CO5
3.	Demander et de	onner	des informations sur quelqu'un							
4.	Chez Susana		,							
5.	Etre invité chez	quelq								l
Leo	cture Periods: 4	5	Iutorial Periods:	Practi	cal Peri	ods:-	Tota	I Period	s: 45	
Те	xtBooks			, <u> </u>	<u></u>					
1. ว	Sylvie Poisson C	Juintor	n and Michele Maheo, Festival 1 Méthod	e de Français,	, CLE edit	ions, 2009	J			
2. 2	Carolino Volteb	sprung	and iony incot, <i>Cosmopolite 1</i> , Hachett	e eartions, 20	11/	1				
з.			Stamey millon, Preparation au Delf A1, 1	achelle ealt	10115, 201	T				

Re	ferenceBooks
1.	Régine Mérieux and Yves Loiseau, Latitudes 1, Didier editions, 2017
2.	Annie Berthet and Emmanuelle Daili, Alter Ego + A1, Hachette editions, 2012
3.	Bruno Giradeau, Réussir le Delf A1, Didier editions, 2019
4.	Richard Lescure, Delf A1 150 Activités, Langers and CLE, 2005
5.	Manisha Verma, La grammaire élémentaire française, Notion Press, 2010
We	eb References
1.	https://www.tv5monde.com
2.	https://www.rfi.fr
3.	https://www.lemonde.fr
4.	https://www.frenchpodcasts.com
5.	https://www.coursera.org

COs/	'POs/	PSOs	Mappi	ing

COs		Progra	am Outcome	Program Specific Outcomes (PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
1	3	3	3	3	3	3	3	3
2	3	3	3	3	2	3	3	3
3	3	3	3	3	3	3	2	3
4	2	3	2	2	3	3	3	3
5	3	3	3	3	3	3	3	3

Correlation Level: 1 - Low, 2 - Medium, 3 – High

Evaluation Method

		Contir	nuous Asso	essment Marks	(CAM)	End	
Assessment	CAT 1	CAT 2	Model Exam	Assignment*	Attendance	Semester Examination (ESE) Marks	Total Marks
Marks	1	0	5	5	5	75	100

* Application oriented / Problem solving / Design / Analytical in content beyond the syllabus

COs/POs/PSOs Mapping

00		Progra	m Outcome	es (POs)	Program Specific Outcomes (PSOs)				
COS	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	
1	3	3	3	3	3	3	3	3	
2	3	3	3	3	3	3	3	3	
3	3	2	3	3	2	3	3	3	
4	2	3	2	1	2	2	3	2	
5	3	3	3	3	3	3	3	3	

Correlation Level

High	Moderate	Low
3	2	1

Evaluation Method

	Continuous Assessmen	t Marks (CAM)	End Semester	Total			
Assessment	CAT 1	CAT 2	Model Exam	Assignment*	Attendance	Examination (ESE) Marks	Marks
						(
Marks	1	0	5	5	5	75	100

Department	Food	Science	Program	nme: B	.Sc Nut	rition a	nd Di	etetics		
Semester	First		Course	Catego	ry Code	e: DSC	*En	d Semest	er Exam Ty	pe: TE
Course Code	A 2 2 N	DT101D	Perio	ods / W	'eek	Cre	edit	Ma	ximum Ma	rks
course coue	AZJN		L	Т	Р	(2	CAM	ESE	TM
Course Name	NUTF	RITION SCIENCE - I	4	0	0		4	25	75	100
Prerequisite	Nutri	ents, Sources and Functions								
C	Knowl	he basic concepts and definitions re	elated to N	lutrition	n and H	ealth.				
Objectives	Detern	nine the Energy value of foods.				-				
Objectives	Unde	rstand the functions, sources and re	quiremen	ts of Ca	rbohyd	rates.				
	Under	stand the functions, sources and rec	uirements	s of Pro	teins.					
	Onder	stand the functions, sources and rec)					nnina
	On cor	npietion of the course, the student	ls will be a	ible to					(Highost	phing ۱۹۸۹)
Course	CO1	Obtain the basic knowledge about	Nutrition a	and its	relation	n to hea	lth		K	. Leveij)
Outcome	CO1	Linderstand the Energy value of fe	ada and it	+: :	tion				V2	-
	02	Understand the Energy value of to	ods and it	s utiliza		• •		1.1	K2	2
	CO3 Obtain the in depth knowledge of Carbohydrate and its role in human health						ealth	K	5	
	CO4	Obtain the in depth knowledge of	Proteins a	nd its r	ole in h	uman h	ealth		Ka	8
	CO5	Obtain the in depth knowledge of	Fat and its	role in	human	health			K	8
UNIT-I	Intro	duction				Period	ls: 12			T
History of Nutr Nutritional Sta Inter relationsh	ition, Co tus, Mal hip betw	ncepts and definitions – Nutrition, H nutrition – Under Nutrition, Over N een Nutrition and Health, Vicious Cy	Health, Nui utrition, Ir ycle, Virtuo	trients, nbalano ous Cyc	Macro ce, Spec le.	and Mic cific Def	ro Nu icienc	itrients, :y.		CO1
		omen.				Daula	-l 42			
UNIT-II	Energ	<u>sy</u>				Perio	as: 12	2		600
Energy Units, E Calorimeter), E Factors affectir Measurement Thermic Effect	Direct an Benedict ng BMR of Basal of Food	d Indirect Calorimetry, Determinati 's Oxy-Calorimeter. Total Energy rec Metabolism - Direct Calorimetry, Ir , Factors affecting TEF.	on of Ener quirement, ndirect Cal	gy Valu , Basal I orimetr	ie of Fo Metabo Ύ,	od (Bor olic Rate	nb ,			
UNIT-III	Carbo	phydrates				Perio	ds: 12	2		
Composition, P Digestion and A	Propertie Absorpti	es, Classification, Functions, Sources on of carbohydrates. Dietary Fiber -	& Require -Sources, 1	ements. Types a	nd Fund	ctions o	f Diet	ary Fibre.		CO3
	1.000					1 eno	40. II	•		CO4
Composition, C Nutritional Clas Factors affectir NPU and NPR,	Classifica ssificationg prote chemica	tion, Functions, Sources & Requiren on of Amino Acids, Digestion, Absorg in utilization , Methods of Protein E I score.	nents otion and I valuation ·	Deficier – PER, E	ncy - PE 3V,	М: Турє	es and	l Dietary T	reatment.	
UNIT-V	Lipids					Perio	ds: 12	2		
Composition, C	lassifica	tion, Functions, Sources & Requiren	nents.							005
Digestion, abso	orption a	and deficiency of lipids . Significance	of SFA, M	UFA, PI	JFA, &	EFA				205
Lecture Period	s: 60	Tutorial Periods:	Practica	al Perio	ds: -		Т	otal Perio	ds: 60	
Text Books										
	1. Roday 2. Yadav 3. Smolii	Y. S, Food Science and Nutrition, OU .S, Textbook of Nutrition and Health n.A, Grosvenor, M.B, Basic Nutrition	P India, II E n, Anmol P n, Infobase	Edition, ublishe Publish	2012. rs 2002 1ing, 20	09.				

Reference Books

- 1. Whitney. E, Rolfes R.S, Understanding Nutrition, Cengage Learning, 2010.
- 2. Robinson, C.H, Marilyn Lawler. M Normal and Therapeutic Nutrition Paperback Macmillan USA; XVIIRevised edition 1990.
- 3. Schlenker. E, Roth S.L, WILLIAM'S Essentials of Nutrition and Diet Therapy, Mosby Publishers, X Edition, 2010.
- 4. Dietary Guidelines for Indians, ICMR, National Institute of Nutrition, Hyderabad, 2011.
- 5. Gordon M. Wardlaw, Paul M.Insel, Perspectives in nutrition 11th edition, Mosby- year Book, Inc. St. Louis , Missouri, 2019
- 6. Krause, M.V. and Hunesher, M.A., Food, Nutrition and Diet Therapy, 14th Edition, W.B. Saunders Company, Philadelphia, London, 2016.

Web References

- 1. <u>https://www.open.edu/openlearncreate/mod/oucontent/view.php?id=315&printable=1</u>
- 2. https://mynutrition.wsu.edu/nutrition-basics
- 3. https://www.getsmarter.com/blog/market-trends/what-are-macronutrients-and-micronutrients/

COs	I	Program	o Outcor	Program Specific Outcomes (PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
1	3	2	2	1	2	2	1	2
2	2	-	1	1	2	2	2	3
3	3	3	3	2	3	3	3	2
4	3	3	3	2	3	3	3	2
5	3	3	3	2	3	3	3	2

COs/POs/PSOs Mapping

Correlation Level: 1 - Low, 2 - Medium, 3 - High

Evaluation Method

		Continu	ious Asse	essment Marks	(CAM)	End	
Assessment	CAT 1	CAT 2	Model Exam	Assignment*	Attendance	Semester Examination (ESE) Marks	Total Marks
Marks	1	0	5	5	5	75	100

Department	Food S	Science	Progran	nme: B.	Sc Nuti	rition and	Dietetics					
Semester	First		Course	Categoi	ry Code	: DSC *	End Semester Exam Type:					
Course Code	A23NI	DT102D	Perio	ds / W	eek	Credi	t Max	timum Ma	arks			
	7.2511		L	T	Р	C	CAM	ESE	TM			
Course Name	FOODS	CIENCE	4	0	0	4	25	75	100			
Prerequisite	Basic Fo	ood Groups, cooking methods, effec	ts of cook	ing.	<u>.</u>	<u>.</u>	I					
	1.	Know about the principles and chen	nistry of f	oods.								
Course	2.	Understand the food chemistry of C	Cereals &	Pulses.								
Objectives	3.	Understand the food chemistry of f	ats, nuts a	and cor	ndimen	ts.						
	4.	Understand the food chemistry of v	regetables	, fruits	and be	verages.						
	5.	Understand the food chemistry of a	animal foo	ods.								
	On com	pletion of the course, the students	will be a	ble to				BT Ma	apping			
6								(Highes	st Level)			
Course	CO1	Obtain the knowledge in making fo		es and	obtaini	ng an ade	quate diet.	ĸ	3			
Outcome	CO2Obtain an insight into the composition, structure and nutritive value of Cereals &K3Pulses.								(3			
	СО3	Obtain an insight into the compos and condiments.	ition, stru	cture a	ind nuti	ritive valu	e of fats, nuts	; K	(3			
	CO4	Gain knowledge about the role of v	egetables/	s, fruits	and be	verages.		k	(3			
	CO5	Get acquainted with the detailed	chemistry	of anii	mal foo	ds .		k	(3			
UNIT-I	Introd	uction of Food Groups and Cooking	Methods			Periods	: 12					
Foods, Classi	fication,	Functions, Food groups, Balanced	Food, Fo	od pyr	ramid,	My plate	Cooking- Ob	jectives	of			
Cooking, Prelin	ninary pr	eparation, cooking methods, Dry he	at, Moist	heat, N	/lerits a	nd Demer	its.		CO1			
LINIT-II	Cerea	s and Pulses				Periods	. 12					
Cereals – Struc	ture. Con	nposition and Nutritive value, cookir	ng quality	ofcere	als. fun	ctional pro	operties – gel	atinizatio	n. CO2			
dextrinization.	Cereal c	ookerv .	.9 4.4.1.1)				Sec. 961		,			
Pulses- Compo	osition a	nd Nutritive value. Processing(brie	f) – Deco	orticatio	on. Ger	mination.	Fermentatio	on. Facto	rs			
, affecting cooki	ng qualit	v of pulses, functional properties	, · binding.	gelatio	n. emu	lsification	, foaming an	, d viscosit	v.			
Presence of to	kic consti	tuents, Pulse cookery.	0,	0	,		, 0		<i>''</i>			
UNIT-III	Fats A	nd Oils, Nuts and Oilseeds, Spices ar	nd Condin	nents		Periods	: 12					
Fats & Oils - Co	ompositi	on and Nutritive value of fats, Type	s, Shorter	ning of	fats, Ef	fect of hea	at on oil abso	orption ar	าd			
factors affectin	ig absorp	tion of oil, Role of fats/oil in cooker	у.						CO3			
Nuts and Oil se	eds- Cor	nposition and Nutritive value, Nuts	and oil se	eds coo	okery.							
Spices and Cor	ndiments	: Medicinal value , uses in cookery.										
UNIT-IV	Veget	ables And Fruits, Sugars and Beverag	ges			Periods	: 12		i			
Vegetables - C	lassificati	on, Composition and Nutritive Value	e, Selectio	on, Pign	nents, e	enzymes a	nd flavour co	mpounds	5. CO4			
Fruits - Classific	cation, Co	omposition and Nutritive Value, post	-harvest o	hange,	enzym	atic and n	on-enzymatio	; brownin	g,			
Ripening of Fru	iits, Pecti	c substances and different types of	plant pigr	nents-	water a	ind fat sol	uble pigment	s.				
Sugars - Prope	erties, Sta	iges of sugar cookery										
Beverages – Cl	assificati	on – Millet based, Milk based, Fruit	based and	d carbo	nated b	beverages						
UNIT-V	Milk a	nd Animal foods				Periods	: 12					
Milk – Compo	sition an	d Properties of milk, Nutritive Val	ue, effect	of hea	at, acid	and enz	zymes, Proce	ssing, Mi	lk cos			
Products, Type	s, Role o	f milk and milk products in cookery .										
Egg- Structure,	Compos	ition and Nutritive Value, Quality of	eggs, Egg	cooke	ry, Role	e of eggs i	n cookery.					
Fleshy Foods- (Composit	ion and Nutritive value of meat, Sel	ection of	neat, P	ost ma	rtem chan	iges in meat,	. Ageing	of			
meat, Tenderi	ng Meat.			-			- ,					
Poultry - Classi	fication,	Processing, Composition and Nutriti	ve value,	Fish - C	lassifica	ation, Com	position, Sel	ection, Fig	sh			

Lecture	e Periods: 60		Tutorial Periods:	Practical Periods: -	Total Periods: 60
Fext B	ooks				
1.	Srilakshmi.	B. Food Scie	nce, New Age Internat	ional Pvt Ltd Publishers, 3rd Ed	ition, 2005.
2.	Shakuntala Sixth Edition	Manay, Sha 1, 2015.	idaksharaswamy. M Fo	oods, Facts and Principles, New	v Age International Pvt Ltd Publisher
3.	Usha Chand 2002.	rasekhar, Fo	ood Science and Applic	cation in Indian Cookery, Phoen	ix Publishing House P. Ltd., New Delh
4.	Food science	e, Chemistr	y and Experimental foo	ods by M. Swaminathan.	
5.	Swaminatha	an, M. : Han	d Book of Food Science	e and Experimental Food	
Refere	nce Books				
1.	Brow, A., U	nderstandin	g Food, Thomson Leari	ning Publications, Wadsworth,	2000.
2.	Mehas, K.Y.	and Rodge	rs, S.L. Food Science an	d You, McMillan McGraw Com	pany, New York, 2000.
3.	Parker, R. Ir	troduction	to food Science, Delme	er, Thomson Learning Co., Delm	na, 2000.
Web R	eferences				
	1. <u>ht</u>	ps://www.fu	turelearn.com/info/cou	rses/eating-while-enjoying-life/0)/steps/75494
	2. <u>ht</u>	p://www.iea	.usp.br/midiateca/apre	sentacao/singhbiofuels2.pdf	
	3. <u>ht</u>	ps://www.h	sph.harvard.edu/nutritic	onsource/legumes-pulses/	

COs/POs/PSOs Mapping

COs	ł	Program	n Outco	mes (P	Os)	Program Specific Outcomes (PSOs)			
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	
1	3	2	2	1	2	2	1	2	
2	2	-	1	1	2	2	2	3	
3	3	3	3	2	3	3	3	2	
4	3	3	3	2	3	3	3	2	
5	3	3	3	2	3	3	3	2	

Correlation Level: 1 - Low, 2 - Medium, 3 - High

Assessment Pattern as per Bloom's Taxonomy

Test / Bloom's Category*	Remembering (K1) %	Understanding (K2) %	Applying (K3) %	Analyzing (K4) %	Evaluating (K5) %	Creating (K6) %	Total %
CAT1	10	20	70	-	-	-	100
CAT2	10	20	70	-	-	-	100
ESE	10	30	60	-	-	-	100
* ±3% may	be varied						

	Evaluation Method											
		Continuo			essment Marks	End						
1	Assessment	CAT 1	CAT 2	Model Exam	Assignment*	Attendance	Semester Examination (ESE) Marks	Total Marks				
]	Marks	1	0	5	5	5	75	100				

Semester First Course Category Code: IDC "End Semester Exam Type: TE Course Code A23CHD102D Periods / Week Credit Maximum Marks Course Name BASIC CHEMISTRY FOR POOD SCIENCE 4 0 0 4 25 75 100 Prerequisite Basic Food Chemistry	Department	Chemistry		Progran	nme: B	.Sc Nu	trition an	d Dietetics		
Course Code A23CHD102D Periods / Veck Credit Maximum Marks Course Name BASIC CHEMISTRY FOR FOOD SCIENCE I T P C CAM ESE TM Course Name Basic Food Chemistry Image: Course Name Basic Food Chemistry Image: Course Name Nake the student to know about the structure of atom and chemical bonding. Image: Course Name	Semester	First Course Category Code: IDC *End Semester Exam Type: Periods / Week Credit Maximum Marks							Туре: ТЕ	
Course Name BASIC CHEMISTRY FOR FOOD SCIENCE L T P C CAM ESE TM Prerequisite Basic Food Chemistry 0 0 0 4 25 75 100 Prerequisite Make the student to know about the structure of atom and chemical bonding. 0 4 25 75 100 Objectives Learn the basic concepts of acids, base and salts. Understand the basic chemistry of Proteins. Understand the chemistry of Proteins. Understand the chemistry of Carbohydrates BT Mapping CO2 Obtain an insight into the concepts of acids, base and salts. K3 CO3 Acquire underlying concepts of chemistry of Carbohydrates K3 CO4 Gain knowledge about the role of Chemistry of Protein K3 CO5 Determine the physical and chemical properties of facts, plant pigments and pacific substances UNIT-1 Colloidal system in foods Periods: 12 Co1 General concept of acids, bases and salts conjugate acids and bases, Classification of salts, Hydrolysis of salts, PH, normal solution. Normal solution. Periods: 12	Course Code	A23CHD102	D	Perio	ods / W	eek	Cree	dit I	Maximum	Marks
Course Name BASIC CHEMISTRY POR POOD SCIENCE 4 0 0 4 25 75 100 Prerequisite Basic Food Chemistry Make the student to know about the structure of atom and chemical bonding. 0 1 25 75 100 Course Image: Course Study the underlying concepts of chemistry of Carbohydrates. 0 1 Basic Chemistry of Carbohydrates. 0 0 1 Basic Chemistry of Carbohydrates. 0 0 100 1 <t< td=""><td></td><td></td><td></td><td>L</td><td>T</td><td>P</td><td>C</td><td>CAM</td><td>ESE</td><td>TM</td></t<>				L	T	P	C	CAM	ESE	TM
Prerequisite Basic Food Chemistry Prerequisite Basic Food Chemistry	Course Name	BASIC CHEN	IISTRY FOR FOOD SCIENCE	4	0	0	4	25	75	100
Prerequisite Basic Food Chemistry Course Learn the basic concepts of acids, base and salts. Study the underlying concepts of chemistry of Proteins. Understand the basic chemistry of Proteins. Understand the chemistry of Fats. Plant Pigments. Course Co1 Recognize the structure of atom and chemical bonding K3 Outcome Co2 Obtain an insight into the concepts of acids, base and salts. K3 Course Co3 Acquire underlying concepts of acids, base and salts. K3 Course Co3 Acquire underlying concepts of chemistry of Protein K3 CO4 Gain knowledge about the role of Chemistry of Protein K3 CO5 Determine the physical and chemical properties of atids, base and salts. K3 CO4 Gain knowledge about the role of Chemistry of Protein K3 CO5 Determine the physical and chemical properties. Periods: 12 Collidal system in foods – meaning, types, properties. Sols – meaning, type, properties: gels – meaning, type, properties, theory of gel formation, factors influencing gel formation. Null'I-I Acids, bases and salts. Co1 Quirt-I Acids, bases and salts. Colidal sys		- • - • • •	• -							
Course Objectives • Make the student of student and status • Understand the basic concepts of acids, base and safts. • Understand the basic concepts of acids, base and safts. • Understand the basic chemistry of Carbohydrates. • Understand the chemistry of Fats, Plant Pigments. • Understand the chemistry of Fats, Plant Pigments. • On completion of the course, the students will be able to (Highest Level) Course Cot Recognize the structure of atom and chemical bonding Cot Recognize the structure of atom and chemical bonding Cot Recognize the structure of atom and chemical bonding Cot Recognize the structure of atom and chemical bonding Cot Cot an innsight into the concepts of chemistry of Carbohydrates Cot Gain knowledge about the role of Chemistry of Protein K3 Cot Colloidal system in foods Periods: 12 Colloidal system in foods Periods: 12 Colloidal system in foods Periods: 12 Golloidal system in foods Periods: 12 Galeral concept of acids, bases and salts, conjugate acids and bases, Classification of salts, Hydrolysis of salts, pH, and Buffer solution. Guivaliant solution. Numi-III Acids, Bases and salts	Prerequisite	Basic Food Ch	Nako tho student to know a	agut tha a	+	~ ~f ~+		o omical ha	adina	
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House New Delhi	Lipids - Fatty a oxidation -Rand Lecture Period Text Books	cids and triglyc cidity, hydrolyt s: 60 . Basic Princip . ShakuntalaN Internationa . Chandrasekt	Tutorial Periods: Manay, Shadaksharaswamy. NalPvtLtd Publishers, 2nd Editionary	al and Che on - mech Practica Nkateswar A (2000) F on. cations in	emical l anisms al Perio an, Vee oods, F	Proper and ca ds: - erasam facts a Cooke	ties of Fai italysts. y&Kuland nd Princip ry (2002)	Total Pe aivel, S.Cha les, New A	riods: 60 nd& co. ge blishing	

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- 5. Chopra H.K, Panesar, P.S, Food Chemistry (2010) Narosa Publishing House, New Delhi.

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- 1. Srilakshmi, B. Food Science, New Age International Publishers, New Delhi, 2010.
- 2. Brow, A., Understanding Food, Thomson Learning Publications, Wadsworth, 2000.
- 3. Parker, R. Introduction to food Science, Delmer, Thomson Learning Co., Delma, 2000.

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- 1. https://medcraveonline.com/AOWMC/biochemical-functions-of-micronutrients.html
- <u>https://chem.libretexts.org/Courses/Brevard_College/CHE_301_Biochemistry/07%3A_Nutrition/7.0</u> 1%3A_Nutr_ients
- 3. https://www.sciencedirect.com/topics/chemistry/macronutrient

* TE – Theory Exam, LE – Lab Exam

Os/POs/PSOs Mapping

COs	I	Program	o Outcon	mes (P	Os)	Program Specific Outcomes (PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3		
1	2	1	-	1	1	1	-	2		
2	2	1	-	1	1	1	-	2		
3	2	2	3	2	3	2	3	1		
4	2	2	3	2	3	2	3	1		
5	2	2	3	2	3	2	3	1		

Correlation Level: 1 - Low, 2 - Medium, 3 - High

aluation Method

		Continu	ious Asse	essment Marks	(CAM)	End	
Assessment	CAT 1	CAT 2	Model Exam	Assignment*	Attendance	Semester Examination (ESE) Marks	Total Marks
Marks	1	0	5	5	5	75	100

Department	Food	Science	Progran	nme: B	.Sc Nutr	ition and	d Die	tetics					
Semester	First Course Category Code: DSC *End Semester Exam Ty A23NDL101D Periods / Week Credit Maximum Ma								ype: L E				
Course Code	A23N	DI 101D	Perio	ods / W	eek	Crec	lit	Ma	ics emester Exam Typi Maximum Mark AM ESE 50 50 ∶ stry of foods d products. BT Mapr (Highest L K3 es in K3 hrs				
	7,251		L	Т	Р	C		CAM	ESE	TM			
Course Name	FOOD	SCIENCE PRACTICAL	0	0	4	2		50	50	100			
Droroquicito	Caakin	a Mathada and Eurotianal Drana	rtion of food	<u> </u>									
Prerequisite		g Methods and Functional Proper	rties of foods)									
Course	10 ena	To onable the students to	Indoretand	tha aa	mnaciti	on and	cho	mictry	f foode				
Objectives	1.	in relation to foodpreparation	n		mpositi	on anu	CHE	mistry 0	10005				
	2.	To use appropriate methods of	of cooking f	or prep	aration	of spec	ific fo	ood proo	ducts.				
	3.	To study the factors influenci	ng the cook	ing qua	ality of	different	food	ls.					
	On con	npletion of the course, the stude	ents will be a	ble to					BT Ma	apping			
		······································							(Highes	st Level)			
Course CO1 Identify suitable food groups for developing products								K	, (3				
Outcome CO2 Acquire knowledge on the food groups and factors influencing the changes in								nges in	K	(3			
		different cooking methods.											
	CO3	Develop skills on various cooki	ng methods	and me	edium of	fcooking	<u>.</u>		к	(3			
Experiments						Practic	als - 3	80 hrs					
1. Familiarizati	on with	different kitchen gadgets.											
2.Methods of n	neasurin	g dry ingredients and liquids.											
3.Cereals a	and cere	al cookerv											
Prepar	ation of	cereal products using Rice, Whea	nt, Ragi, Thina	ai, Sam	ai, Vara	gu etc.							
 Experir 	mental c	ookery on cereals.	, 0,		, ,	5							
4.Pulse Coo	okery												
•	Pulse b	ased recipes											
•	Experir	nental cookery											
5.Vegetable	es and Fr	uits											
Effect of	of cookir	ng on vegetables pigments.											
 Prepar 	ation of	vegetable curries, and fruits sa	lad.										
6.Milk Cook	kery												
•	Prepara	ation of ice creams and milk Prod	lucts										
7.Egg Prepa	aration o	Ť											
Scramt Desch	oled egg.												
	tto and F	vnerimental cookerv											
• Officie		experimental cookery.											
Text Books													
1. Shakur	ntalaMar	nay, Shadaksharaswamy. M (2000)) Foods, Fac	ts and I	Principle	es, New A	Age Ir	iternatio	nalPvt				
Ltd Pul	blishers,	2nd Edition											
2. Chandr	aseknar,	U. Food Science and applications	in Indian Co	океry (.	2002) Pr	noenix Pi	ublish	ing Hous	e, New De	eini			
1 Hmacfie (20	(\mathbf{KS})	sumer led food Product Develop	mont Wood	hoad n	ublichin	alta IIk							
2 Fuller Gordo	M/(20)	05) New Food Product Develop	ment 2 nd edi	tion Cl	RC nress	Boca	N Rator	Florida					
3 Schaffner D	I Schrod	er W B (2010) Food Marketing	and Internat	ional n	ersnecti	ves web	/ Mc	Graw Hi	, Il Publicat	ion			
Web Reference	es				cropeeti	100) 1100	,e						
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<u>https://ww</u>	ww.tood	researchiad.com/what-we-do/no	ew-product-	<u>develo</u>	pment-s	service/r	<u>iew-f</u>	<u>vod-pro</u>	<u>auct-</u>				
http://www.	food	researchish com/what we do/n	w-product-	dovolo	nmont_o	orvice/							

https://www.sciencedirect.com/book/9781845697228/food-product-development

http://niftem-t.ac.in/food_product_development.php

COs	I	Program	o Outcon	mes (P	Os)	Program Specific Outcomes (PSOs)			
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	
1	2	2	2	-	3	3	2	3	
2	3	3	3	2	3	3	3	2	
3	3	3	3	2	3	3	3	2	
4	3	3	3	2	3	3	3	2	
5	3	3	3	2	3	3	3	2	

COs/POs/PSOs Mapping

Correlation Level: 1 - Low, 2 - Medium, 3 - High

Evaluation Method

Internal Assessment	Model exam	Internal marks Record	Internal marks Record Attendance			
Marks	30	10	10	50	100	

Departr	ment	Food S	Science	Program	nme: B .	.Sc Nut	rition a	nd Die	etetics		
Semeste	er	First		Course	Catego	ry Code	: DSC	*En	d Semes	ter Exam	Type: L E
Course	Code	V23CF		Perio	ods / W	eek	Cre	edit	Ma	aximum N	Marks
course	Coue	7250	11020	L	Т	Р	(C	CAM	ESE	TM
Course	Name	BASIC PRAC	CHEMISTRY FOR FOOD SCIENCE	0	0	4		2	50	50	100
Prerequ	uisite	Food C	hemistry								
Course	•	To enal	ble the students to								
Object	tives	1. 2. 3. 4.	To identify the functional groups To know the elements present in To realize the nature of aliphatic To visualize confirmatory tests of	of unkno the com / aroma f various	own org npound tic com functio	ganic c Is ipound onal gr	ompou s oups	nds.			
		On con	npletion of the course, the students	s will be a	ble to					BT N	/apping
Course		CO1	Detect various functional groups pr	esent in a	n orgar	nic com	nound			(rigi	K3
Outcom	ne	CO1	Linderstand about saturation and		tion na	ture of	compoi	unde			K2
_		CO2	Identify alightic and aromatic com	nounde			compot	41105			K3
		CO3	Visualize confirmation to ste of varia		nal ara						
		CO4	visualize commutatory tests of vario		onal gro	ups					K3
Experin	nents		<u> </u>				Pract	icals -	30 hrs	L	
	UK	1. Pr 2. De 3. To 4. To	ANALYSIS reliminary tests etection of special Elements (N,S o distinguish between aliphatic ar o distinguish between Saturated a	, Haloge Id aroma and unsa	ns) tic com turatec	npound d comp	s. ounds.				
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Text Bo 1. 2. 3. Referen 1. 2. 3. Web Re 1.	ooks Rageet Analysi Israel A Arthur I Nce Book Venkate Chemis Mendha Quantit Gopala Chanda	I. Pr 2. De 3. Tc 4. Tc 5. Fu ali cc te b Md. U is", Unic Arthur V Israel V cs seswara stry", Ne am. J, tative Al am. R, Si and So s assets.cs	ANALYSIS reliminary tests etection of special Elements (N,S o distinguish between aliphatic ar o distinguish between Saturated a unctional group tests for pheno- iphatic amide& Carbohydrate ompounds containing one function st. Usman, Dr.Sunila T, "Practical Har corn Publication Pvt. Ltd,1 st Editio /ogel, "Vogel's Textbook of Pract /ogel, "Elementary Practical Orga an. V, Veeraswmay. R, Kulandai ew Delhi, Sultan Chand and Sons Denney. R.C, Bames. J.D, and nalysis",Pearson Education,1 st E ubramaniam.P.S and Rengaraja ins, 1 st Edition, 2004.	, Haloge and aroma and unsa Glucose nal group ad Book o on, 2015. ical Orga nic Cher velu. A.I s.2 nd Edit Thomas dition, 19 n.K, "Ele	ns) tic corr turatec (mono, and ch of Syste anic Ch nistry" R., "Ba ion, 19 , M. "V 89. ments	pound d comp di) ar tematic naracte ematic ematic Prentic 97. /ogel's of Ana	s. ounds. omatic anal rization Organi y", Wile ce Hall nciples Text b lytical	; prim ysis n by c c Qua ey Ed Press ; of P pook Chen	hary am of orga confirma alitative ition: 1 st s; 3 rd Ed Practical of histry", S	ine, anic tory Edition, ition, 198	1989. 30.
Text Bo 1. 2. 3. Referen 1. 2. 3. Web Re 1. 2. 3.	ooks Rageek Analysi Israel A Arthur I nce Book Venkate Chemis Mendha Quantit Gopala Chanda chanda	ANIC A 1. Pr 2. De 3. To 4. To 5. Fu ali co te b Md. U is", Unic Arthur V Israel V cs am. J, tativeAl an. R, Si and So ss assets.cs www.csu	ANALYSIS reliminary tests etection of special Elements (N,S o distinguish between aliphatic ar o distinguish between Saturated a unctional group tests for pheno iphatic amide& Carbohydrate ompounds containing one function st. Isman, Dr.Sunila T, "Practical Har corn Publication Pvt. Ltd,1 st Editio /ogel, "Vogel's Textbook of Pract /ogel, "Vogel's Textbook of Pract /ogel, "Elementary Practical Orga an. V, Veeraswmay. R, Kulandai ew Delhi, Sultan Chand and Sons Denney. R.C, Bames. J.D, and nalysis",Pearson Education,1 st E ubramaniam.P.S and Rengaraja ins, 1 st Edition, 2004.	, Haloge and aroma and unsa Glucose nal group nd Book o on, 2015. ical Orga nic Cher velu. A.I s.2 nd Edit Thomas dition, 19 n.K, "Ele matter/97 b14_Qua	ns) tic corr turated (mono, e. Sys and ch of Syste anic Ch nistry" R., "Ba ion, 19 , M. "V 89. ments	npound d comp di) ar tematic naracte ematic nemistr Prentic sic Pri 997. /ogel's of Ana	s. ounds. omatic anal rization Organi y", Wile e Hall nciples Text b lytical	; prim ysis n by c c Qua ey Ed Press ; of P pook Chen atter.p	hary am of orga confirma alitative ition: 1 st s; 3 rd Ed Practical of histry", S	ine, anic tory Edition, ition, 198	1989. 30.

COs	I	Program	o Outcon	mes (P	Os)	Pi O	pecific PSOs)	
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
1	2	1	-	1	1	1	-	2
2	2	1	-	1	1	1	-	2
3	2	2	3	2	3	2	3	1
4	2	2	3	2	3	2	3	1
5	2	2	3	2	3	2	3	1

COs/POs/PSOs Mapping

Correlation Level: 1 - Low, 2 - Medium, 3 - High

Evaluation Method

Internal Assessment		ESE	TOTAL			
	Model exam	Record	Attendance	MARKS	MARKS	
Marks	30	10	10	50	100	

Department	ENGLISH	Progra	amme: I	BSc.Nut	rition and	Dietet	ics	
Semester	FIRST	Cours SEC	e Categ	ory Code	e: End Se : -	mester	Exam Ty	/pe
		P	eriods /	' Week	Credit	N	laximum	n Marks
Course Code	A23ENSA02C	L	T	Р	С	CAM	ESE	TM
Course Name	SOFT SKILLS	2	0	0	2	100	0	100
	Y							
Prerequisite	Knowledge gained from Journal reading and	Newspa	aper rea	ading			1	
	To train students in Soft skills in order to enab	le them	n to be p	professio	onally			
Courses	Competent To facilitate the students for Coal setting and	Cool Ar	hioving	, ckille				
Course	To facilitate the students for Goal setting and		uneving	SKIIIS	- 4			
Objectives	To enrich the sense of social responsibility and	accou	ntability	y of the	students			
	To help the students to train them for Stress N	Manage	ment a	nd Time	Manager	nent		
	To train the students to work with team envir	onment	t and Cr	eative t	hinking		DT M	
	On completion of the course, the students will be	able to					(Highes	apping it Level)
	CO1 enhance the Soft skills and compete pro	ofession	ally				K	3
Course	CO2 achieve Goal setting and Goal Achieving	g skills					к	3
Outcomes	CO3 improve their social responsibility and a	ccount	ability s	kills			к	3
	CO4 enrich Stress Management and Time M	anagem	nent				к	3
	CO5 demonstrate the quality of a Team ship	and Cre	eative tl	hinking			к	3
UNIT-I	POSITIVE ATTITUDE				Periods	: 06		
Skills-Personal Sk	ills: Knowing Oneself/Self-Discovery - Confider	nce Buil	ding - D	efining	Strengths	of Atti	tude -	
formation of atti	tudes - psychological factors - the power of po	sitive at	titude -	the ber	nefits of p	ositive	attitude	CO1
 developing pos 	itive attitude - negative attitude – the causes o	of negat	ive attit	tude - th	e conseq	uences	of	
negative attitude	- how to change negative attitude							
UNIT-II	GOAL SETTING				Periods	: 06		
Introduction - im	portance of goal setting - goal definition - type	s of goa	als - wha	at exactl	y goal set	tting - w	vhy	CO2
people don't set	goals - how to choose the right goals - SMART	GOALS	- Caree	r goals -	benefits	of caree	er goal	
setting - goal sett	ing tips							
UNIT-III	STRESS AND TIME MANAGEMENT				Periods	: 06		•
Definition of Stre	ss management - types of stress - causes of str	ess - st	ress ma	nageme	nt and re	ductior	1	CO3
techniques - Defi	nition of Time management - Setting goals, pla	nning -	- priorit	izing - se	etting dea	dlines -	- multi-	
tasking - practicir	ng self-discipline - overcoming procrastination							
UNIT-IV	TEAMWORK SKILLS				Periods	: 06		
Communication a	as Social Construction - Dynamics of professior	al Grou	ip comn	nunicati	on - Grou	p and T	eam -	CO4
Team Building Pr	ocess - Managing conflict and appreciating/res	pecting	g differe	ences - D	ecision m	naking &	k l	
effective negotia	tion - Types of teams - Understanding, Identity	and nu	irturing	sensitiv	ity (in ter	ms of g	ender,	
orientation, lang	uage)							
UNIT-V	PROBLEM SOLVING THROUGH CREATIVE T	HINKIN	IG		Periods	: 06		
Thinking Creative	ely - Improving Perceptions - Creative thinking	as an es	sential	skill - Te	chniques	of crea	tive	CO5
thinking (such as	brainstorming, lateral thinking, mind mapping	, rich pi	ctures,	role play	y) - Practi	cal prol	olem	
solving through c	reative thinking - Case Study							
Lecture Periods:	- Tutorial Periods: -	Practi	cal Peri	ods: 30	Tota	l Perioc	ls: 30	
Text Books								
1. Sabina Pillai,	Agna Fernandez, Soft Skills and Employability	Skills, Ca	ambridg	ge Unive	rsity Pres	s, 2017	•	
2. Jeff Butterfie	Id, Soft Skills for Everyone, Cengage India Priva	te Limit	ted, 2 nd	Edition,	2020.			
3. Alex K, Soft S	<i>kills</i> , S Chand & Company, 1 st Edition, 2014.							
Reference Book	S							
1. Barun Mitra,	Personality Development and Soft Skills 2, Oxf	ord Uni	versity l	Press, 20	016.			

- 2. Prashant Sharma, *Soft Skills 3rd Edition: Personality Development for Life Success*, BPB Publications, 2021.
- 3. Ghosh, B.N, *Managing Soft Skills for Personality Development*, Tata McGraw Education Publication, 1st Edition, 2012.
- 4. R.S.Aggarwal. A Modern Approach to Non-Verbal. S Chand Publication. 2017.
- 5. K. K. Sinha, *Business Communication*, Galgotia Publishing, 4th Edition, 2011.

Web References

- 1. <u>https://www.mindtools.com/a5ykiuq/personal-goal-setting</u>
- 2. <u>https://www.healthlinkbc.ca/health-topics/stress-management-managing-your-time</u>
- 3. https://www.herzing.edu/blog/7-important-teamwork-skills-you-need-school-and-your-career
- 4. https://online.hbs.edu/blog/post/what-is-creative-problem-solving
- 5. https://www.lucidchart.com/blog/7-steps-to-creating-better-goals

COs/POs/PSOs Mapping

<u> </u>		Progra	m Outcome	es (POs)		Program Specific Outcomes (PSOs)							
COS	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3					
1	1	3	3	1	1	1	3	3					
2	3	3	3	1	1	1	3	2					
3	3	3	3	1	2	1	3	3					
4	3	3	3	1	2	1	3	1					
5	3	3	3	1	3	1	3	3					

Correlation Level

High	Moderate	Low
3	2	1

Evaluation Method

		Cont	inuous Asse	AM)	End Semester	Total	
Assessment	CAT 1	CAT 2	Model Exam	Assignment*	Attendance	Examination (ESE) Marks	Marks
Marks	80		-	10	10	-	100

Department	Food Science	Progran	nme: B.	Sc Nutr	ition and	l Diete	tics				
Semester		Course	Catego	ry Code	: AEC	*End	Semest	er Exam Ty	pe: TE		
Course Code	A23AETA01C	Peric	ods / W	eek	Creo	dit	Ma	ximum Mai	rks		
		L	T	Р	С		CAM	ESE	TM		
Course Name	Public Administration	2	0	0	1		100	0	100		
(Common	to B.Sc, BCA, B.Com, BBA, BA Branches)										
Prerequisite	Knowledge about Administration										
	The main objectives of the course are,										
	To introduce the elements of public adm	inistratior	ו								
Course	To help the students obtain a suitable conceptual perspective of public administration										
Objectives	To introduce them the growth of institut	ion device	es to m	eet the	need of	changi	ing time	S			
	To instill and emphasize the need of ethic	cal serious	sness in	conten	nporary	Indian	Public A	Administrat	ion		
									-		
	On completion of the course, the studen	ts will be	able to	כ				BT Map	oping		
	CO1 Understand the concents and evolu	ution of D	بامانه ۸۰	don in inte	ation			(Highest	Level)		
Course	CO1 Onderstand the concepts and evolution							1/1	•		
Outcome	CO2 Be aware of what is happening in t	ne Public			n in the c	Jountry	/ .		•		
	CO3 Explain the remtory Administration			tration	entre.			K2			
			Aurinins	suation	Deuted	07		K3	•		
UNIT-I	INTRODUCTION TO PUBLIC ADMINISTRATIO	JN to rolation	chinwi	th atha	r discipli	S: U/	olution				
Administratio	and scope of Public Authinistration and T				hor and	d otho		olution of			
	intration in India Arthachastra Colonia	I Adminic	tration			u otne	13 - LV		CO1		
	istration in india – Arthashastra – Colonia	I Auminis	tration	i upto i	1947						
					Doriod	c. 00					
Enactment of	Indian Constitution - Union Government -	The Cab	inot _ (Control	Secreta	s. Uo	All Indi	a Sarvicas	CO3		
- Training of	Civil Servents = LIPSC = Niti Avog = Statut		s. Tho	Contra	l Vigilan		nmissio	n = CBI =	002		
National Hum	an Rights Commission – National Womer	o's Comm	ission .		i vigitari		111113510				
			1551011	CAG							
UNIT-III	STATE AND UNION TERRITORY ADMINISTR	ATION			Period	s: 08					
Differential Ac	Iministrative systems in Union Territories co	ompared t	o State	s Orgar	nization o	of Secr	etariat:	- Position			
of Chief Secre	tary, Functions and Structure of Departmer	its, Directo	orates -	– Minis	try of Ho	me Af	fairs su	pervision	CO3		
of Union Ter	ritory Administration – Position of Lt.Go	overnor ir	ו UT –	Gover	, nment c	of Unio	onTerri	tories Act			
1963 – Chang	ing trend in UT Administration in Puduche	erry and A	Andama	an and	Nicobar	Island	J.				
UNIT-IV	EMERGING ISSUES IN INDIAN PUBLIC ADMI	NISTRATI	ЛС		Period	s: 07					
Changing Rol	e of District Collector – Civil Servants -	- Politicia	ans rela	ationsh	ip – Cit	izens	Charte	r - Public	CO4		
Grievance Rec	dressal mechanisms — The RTI Act 2005 –	Social Au	uditing	and De	centraliz	ation	– Publ	ic Private			
partnership.											
Lecture Periods	: 30 Tutorial Periods: -	Practica	l Perio	ds: -		Tot	al Perio	ds:30	.i		
Text Books ((№	linimum 2 and maximum 3 – Latest editions	to be give	en)								
1 Avacth	i and Mahaswari "Public Administration"	' Lakehr	ni Naro	in Ago	nwol 1st	Editio	n 2014	3			
2 Rames	sh K Arora "Indian Public Administration	, Laksiiii • Institutio	in Nara	ni ryai d leene	s" New		11, 2010	J.			
Interna	ational Publishers, 3rdEdition, 2012	· ····ontant			5,1101	, .go					
3. Rumki	Basu, "Public Administration: Concept a	nd Theori	es". St	erlina.	1 st Editi	on. 20)13.				
			, 0			, _ 0					
Reference Bool	ks (Minimum 5– Latest editions to be given)										
1. Siuli Sa	arkar, "Public Administration in India". Pr	entice Ha	all of In	dia, 2 nd	¹ Edition	, 2018	3.				
	,		-	,							

2. 3.	M. Laxmikanth, "Public Administration", McGraw Hill Education, 1st Edition, 2011. R.B.Jain, "Public Administration in India, 21 st Century Challenges for Good Governance", Deep andDeepPublications, 2002.
Neb R	eferences (Minimum 5)
2	http://www.mba.nic.in/
Ζ.	
2. 3.	http://rti.gov.in/

Evaluation Method

		ESE	TOTAL		
Marks Distribution	CAT I & CAT II	Report	Attendance	MARKS	MARKS
Distribution	70	20	10	-	100

SEMESTER II

Departn	nent	Frenc	h	Progran	nme: B.	Sc Nutr	ition and	d Diete	etics			
Semeste	er	Secon	d	Course	Catego	ry Code	: AEC	*End	Semest	er Exam Ty	/pe: TE	
Course	Code	Δ23EB	72020	Peric	ods / W	eek	Cre	dit	Ma	ximum Ma	arks	
coursev	coue	A2511	12020	L	Т	Р	C		CAM	ESE	TM	
Course	Name	FRENC		3	0	0	2	2	25	75	100	
(Commo	on to B.A	, B.SC., an	nd BCA Branches)									
Prerequ	isite	Basic k	knowledge of French language									
Course		1.	To introduce the basics of French	n language	to the	student	ts.					
Object	ives	2.	2. To enable the students to read, understand and write simple sentences									
0.0,000		3.	To help them to grasp the fundar	mentals of	French	gramn	nar					
		4.	To make the students to formula	te correct	phrase	S		•-				
		5.	To introduce them French and Fr	ancophon	e count	tries an	d their c	ulture	S		•	
		On com	pletion of the course, the students	s will be a	ble to					BI Ma	apping	
Course cot have a general understanding of the language								(Hignes	t Level)			
Outcom	e	001			ge 							
Outcom		CO2	analyze and interpret simple phra	ises writte	n in Fre	ench				K	3	
		CO3	have the basics of French gramma	ar						K	3	
		CO4	communicate and ask basic quest	ions in Fre	ench lar	nguage				K	3	
		CO5	appreciate the diversity and multi	plicity of F	rench a	and Fra	ncophor	ne wor	ſd	K	3	
UNIT-I							Period	ls: 9			1	
1.	Qu'est-	ce qu'or	n offre?									
2.	L'interro	o-négati	on.								CO1	
3.	On Sold	e										
4.	Le comp	oaratif.										
5.	Les fête	S					1					
UNIT-II							Period	ls: 9			1	
1.	Découv	rir Paris	en bus avec l'open tour.								CO2	
2.	Les verk	pes pron	iominaux									
3.	Si vous	gagnez,	vous ferez quoi?									
4.	Le futur	simple										
5.	Les supe	erlatifs.										
UNIT-III							Period	ls: 9				
1.	Parasol	ou para	pluie								~~~~	
2.		il est mi	nice. di à Paris?								03	
3. 4.	L'emplo	i du ten	nps:métro, boulot, restau.									
5.	Parler d	lu temps	s qu'il fait.									
UNIT-IV	_						Period	ls: 9				
1.	Vous all	ez vivre	à Paris?								CO4	
2.	Les régi	ons de F	France									
3.	L'avenir	du fran	çais.									
4.	La place	e des adj	jectifs.									
5.	Souveni	irs d'enf	ance.									
UNIT-V							Period	ls: 9				

_		
1.	J'ai fait mes études à Lyon.	CO5
2.	Retour des Antilles	
3.	Raconter ses vacances.	
4.	Au voleur! Au voleur!	
5.	Les journaux en France.	
Lectur	e Periods: 45 Tutorial Periods: Practical Periods: - Total Periods: 45	
Text B	ooks	-
1.	Sylvie Poisson Quinton and Michèle Maheo, Festival 1 Méthode de Français, CLE editions, 2009	
2.	Nathalie Hirschsprung and Tony Tricot, Cosmopolite 1, Hachette editions, 2017	
Refere	nce Books	
	5. Régine Mérieux and Yves Loiseau, Latitudes 1, Didier editions, 2017	
	6. Annie Berthet and Emmanuelle Daili, Alter Ego + A1, Hachette editions, 2012	
	7. Bruno Giradeau, <i>Réussir le Delf A1</i> , Didier editions, 2019	
Web R	eferences	
1.	https://www.tv5monde.com	
2.	https://www.rfi.fr	
3.	https://www.lemonde.fr	
4.	https://www.frenchpodcasts.com	
5.	https://www.coursera.org	

COs/POs/PSOs Mapping

COs	1	Program (Dutcome	es (PO)		Program Specific Outcomes (PSOs)			
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	
1	3	3	3	3	3	1	2	3	
2	3	3	3	3	3	1	2	3	
3	3	3	3	3	3	1	2	3	
4	2	3	3	3	3	1	2	3	
5	1	2	1	1	1	1	2	3	

Correlation Level: 1 - Low, 2 - Medium, 3 - High

Assessment		Conti	nuous Asses	AM)	End		
	CAT 1	CAT 2	Model Exam	Attendance	Semester Examination (ESE) Marks	Total Marks	
Marks	10		5	5	5	75	100

Evaluation Method

Department	ENG	ilish			Programme: B.Sc Nutrition and Dietetics							
Semester	Seco	ond			Course Cate	egory Co	ode: AE	C End Se	mester	Fxam T	vne: TF	
			_		Period	s / Wee	k	Credit	N	Aaximum Marks		
Course Code	A23	GET202	C		L	, T	Р	С	CAM	ESE	TM	
Course Name	GEN	IERAL EI	NGLISH - II		3	0	0	2	25	75	100	
(Common to B.	A, B.S	SC., and	BCA Branches									
Prerequisite	Basi	c part-tv	wo language ai	nd knowledg	e gained fror	n Gram	mar and	d Compos	ition			
	To tra	ain stud	ents to identify	/ poetic form	is and issues	related	to cont	exts				
_	To e	nable th	ne student in tl	ne skill of rea	iding for idea	S						
Course	To e	nable th	ne students to	enjoy the lite	erature throu	igh the v	work of	great wri	ter			
Objectives	To in	troduce	drama as a so	cial product a	and a literary	form						
	To h	ione co	mposition skill	s in students								
	0		an af tha cause		nta will ha ak					BT M	apping	
	Unto	ompieuo	on of the cours	e, the stude	nts will be ab	ne lo				(Highes	st Level)	
	CO1	comp	rehend and dis	scuss the vari	ious facets of	selecte	ed poem	IS		k	(3	
Course	CO2	evalua	te and Criticize	the prose te	exts.					k	(3	
Outcomes	603	illustra	te various refle	ections and ir	nstances in sł	nort sto	ries wit	n persona		k	(3	
		experiences										
	CO4	coa develop critical appreciation based on the understanding of the prescribed texts										
	CO5 enhance the writing skills for specific purposes											
INIT-I POETRY Periods: 09												
1. Nissim Ezeki	el - N	linority	Poem									
2 Sarajini Naid	lu In	dian Wa	aver								CO1	
2. 3810,11111880	u – m		aver									
3. Walt Whitma	an – <i>O</i>	Captaiı	n My Captain									
4. William Blak	e – Ty	ger										
C Dabindranat	h Tage	- Da	nor Post									
S. Kabinuranat LINIT-II) 19 19 19 19 19 19 19 19 19 19 19 19 19	per bout					Periode	· 09			
1 Jawaharlal N	lehru -	– A Trysi	t With Destinv					T CHIOUS			CO2	
1. 54.64.64.64												
2. Martin Luthe	er King	g — I hav	e a dream									
3. Swami Vivek	ananc	la – Spe	ech at world Pa	arliament of l	Religion Chico	ago						
UNIT-III	SHC	ORT STO	RIES					Periods	s: 0 9		,	
1. Arthur Cano	n Doyl	e – A Sc	andal in Bohen	nia							CO3	
2. Stephen Cra	ne – 7	The Oper	n Boat									
UNIT-IV	DRA	MA						Periods	5:09			
1. Cedric Moun	it Shoi	rt – The	Never Never N	est							CO4	
2. Fritz Karinth	y – Rej	fund										
UNIT-V	GRA	MMAR	AND COMPOS	SITION				Periods	5: 0 9		·	
1. Cause and Ef	ffect A	nalysis									CO5	
2. Note Making	, brohou	acion										
2. FICLULE COM	prenei ttern	ISION										
5. Sentence Pu	nctuat	ion										
Lecture Periods:	45		Tutorial Perio	ods: 0	Practical Pe	eriods:	-	Tota	l Perioc	ls: 45		
Text Books					<u> </u>			<u> </u>				

- 1. Pegasus, Scandal in Bohemia & Other Stories, B Jain Publisher, 2016.
- 2. Stephen Crane, The Open Boat and Other Stories, Createspace Independent Publisher, 2017.
- 3. Wren & Martin, Primary School English Grammar and Composition, Generics Publication, 2023.

Reference Books

- 1. Anjli Sehrawat, *Mother's Day : Bhagat Phoolsingh Women's University*, Notion Press Publication, 2022.
- 2. Martin Luther, Heming Daoudi, *Martin Luther King's I have a dream speech*, Kindle Edition, 2020.
- 3. Stephen Crane, The Open Boat Stephen Crane, Createspace Independent Publication, 2013.
- 4. Rabindranath Tagore, William Radice, *Selected Poems: Rabindranath Tagore*, Penguin Publication, 2000.
- 5. Swami Tapasyananda, Swami Vivekananda his life and Legacy, Ramakrishna Math Publication, 2008.

Web References

- 1. https://allpoetry.com/Minority-Poem
- 2. http://www.sourcecodeonline.com/list?q=the_never_never_nest_author_cedric_mount
- 3. https://www.cam.ac.uk/files/a-tryst-with-destiny/index.html
- 4. https://poets.org/poem/tyger
- 5. https://www.poetryfoundation.org/poems/45474/o-captain-my-captain

		Prog	ram Outcor	nes (POs)		Progra	m Specific Outco	mes (PSOs)
COs	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3
1	3	2	3	2	3	3	3	3
2	2	3	3	3	2	2	2	2
3	3	2	2	3	1	3	2	3
4	2	3	3	2	1	2	3	2
5	3	3	3	3	3	2	2	3

COs/POs/PSOs Mapping

Correlation Level

High	Moderate	Low
3	2	1

Evaluation Method

		Conti	inuous Asse	AM)	End Semester	Total	
Assessment	CAT 1	CAT 2	Model Exam	Assignment*	Attendance	Examination (ESE) Marks	Marks
Marks	1	0	5	5	5	75	100

Department	Food Science Programme: B.Sc Nutrition and Dietetics									
Semester	Second	1	Course	Catego	ry Code	: MJD	*Enc	d Semeste	erExamTyp	e: TE
Course Code	423ND	072030	Peric	ds/We	ek	Crec	lit	Ma	ximum Ma	irks
			L	Т	Р	C		CAM	ESE	TM
Course Name	NUTRI	TION SCIENCE - II	4	0	0	4		25	75	100
Prerequisite										
Course Objecti	Learna	about the functions, sources and req	uirement	s of fat	soluble	vitamins	-			
	Under	stand the functions, sources and requ	uirements	s of wat	er solul	ole vitam	ins			
	Know	about the functions, sources and req	uirement	s of ma	acro mir	nerals				
	Under	stand the functions, sources and requ		s of ultr	a trace	minerais				
		mpletion of the course, the students	will be a	hla ta					BT M-	nning
		inpletion of the course, the students							(Highes	t Level)
CourseOu	CO1	Obtain in depth knowledge of fat so	luble vita	mins					K	3
tcome	CO2	Gain knowledge about the water sc	oluble vita	mins					К	3
	CO2	Get acquainted with complete macr	o mineral	c					v v	2
		Understand clearly the nutritional		s miere i	minaral	~			N V	2 2
	CO4	To obtain in double knowledge of w	aspects of			5				ว ำ
	CU5 Eat col	uble vitamins	ater and e	electron	yte bala	nce Periode	.17		ĸ	5
Eat Soluble	Vitami	$\Delta D E$ and K_{-} Eulertions, absorb	tion defi	rioncy	and ave		irom	onts and	food	
sources	vitaiiii		tion, dent	Liency c		ess, requ	nenn		1000	CO1
sources.										
UNIT-II	Wate	r soluble vitamins								
Water Solu	ble Vita	amins - Functions, food sources, requ	uirement,	deficie	ncy and	excess c	of Vita	amin B- E	81, B2,	CO2
B3, B6, B9	and B1	2								
Vitamin C –	- Functi	ons, food sources, requirements, def	ficiency a	nd exce	SS					
UNIT-III	Macro	Minerals				Periods	5:12			
Macro Min	erals –	Calcium, Phosphorus, Magnesium, P	otassium	, Sodiur	m and C	hloride –	- fund	ctions, ef	fects of	
deficiency,	food so	ources and RDA								CO3
LINIT-IV	Micro	Minerals				Periode	:12			
Micro Mine	rals – Ir	on Iodine Conner Zinc Eluoride Se	lenium c	hromiu	ım – fur	nctions f	ood			CO4
	uireme	ents deficiency and excess	.ieiiiuiii, e	monne	in rui		000			
						Periode				
	Water	and Electrolyte Balance	-			renous				1
Water – dis	tributio	on of water, functions and requireme	nts, sourc	es, wat	ter bala	nce, wate	er de	pletion, e	effect of	CO5
Flectrolyte	valion, halance	water intoxication (Excess) a = electrolyte concentration in ECE a	nd ICE sig	nifican	ice and	disorders				
Lecture Periods	:60		Practica	el Perio	ds:-	aisoracia	, Το	tal Perio	ds:60	
TextBooks					u01					
1. Swamin	athan.	M, Essentials of food and Nutrition, V	/ol I and II	, Bappo	co Publi	shers, M	adras	s 2000.		
2. Srilaksh	mi.B, N	lutrition Science, New age internation	nal (P) ltd	, publis	hers, 20)04.				
3. Rodav.S	S. Food	Science and Nutrition. OUP India. II E	dition. 20)12.	,					
, 4. Yadav.S	Textb	ook of Nutrition and Health. Anmol P	, ublishers	. 2002.						
5. Smolin.	A. Grov	enor. M.B. Basic Nutrition. Infobase	Publishing	z. 2009.						
Reference Book	(S			<i>,</i>						
1. Whitney	v.E. Rol	fes R.S. Understanding Nutrition. Cer	ngage Lea	rning. 2	2010.					
2. Robinsc	on, C.H,	Marilyn Lawler. M Normal and Thera	apeutic N	utrition	n Paperk	back Mac	milla	n USA: X	VII Revised	Ł
edition	1990.	-								
3. Insel, Ro	oss. D. I	Bernstein. M, K McMahon. K, Discove	ering Nutr	ition, Jo	ones an	d Bartiet	t Pub	lishers, 2	015	
4. Schienk	er, E. R	oth S.L, Williams Essentials of Nutriti	on and Di	et thera	ару, Мс	sby Publ	isher	s, 2010		
Web Reference	S									
1. <u>https://</u>	WWW.C	dc.gov/nutrition/micronutrient-maln	utrition/m	ncronu	trients/i	ndex.htn	<u>nl</u>			

- 2. <u>https://mynutrition.wsu.edu/nutrition-basics</u>
- 3. <u>https://www.who.int/health-topics/micronutrients#tab</u>

COs/POs/PSOs Mapping

COs	I	Program	n Outco	mes (PO	Os)	Program Specific Outcomes (PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3		
1	3	2	1	-	2	2	3	1		
2	3	2	1	-	2	2	3	1		
3	3	2	3	2	3	3	3	2		
4	3	3	3	2	3	3	3	2		
5	3	3	3	2	3	2	3	2		

Correlation Level: 1 - Low, 2 - Medium, 3 - High

Evaluation Method

	(Continu	ious Asse	(CAM)	End		
Assessment	CAT 1	CAT 2	Model Exam	Assignment*	Attendance	Semester Examination (ESE) Marks	Total Marks
Marks	1	0	5	5	5	75	100

Department	Food Science Programme: B.Sc Nutrition and Dietetics										
Semester	Second	l		Course	Categor	yCode	: MJD	*End S	Semeste	erExamTyp	e: TE
Course Code		T204D		Peri	ods/We	ek	Crec	lit	Max	ximumMar	ks
course coue	AZJND	12040		L	Т	P	C	(CAM	ESE	TM
Course Name	HUMA	N PHYSIC	DLOGY	4	0	0	4	•	25	75	100
Prerequisite											
	To kno	w about t	he structure and function	s of cell an	d its org	ganelle	S				
Course	Learn a	bout the	composition, functions ar	nd propert	ies of ci	rculato	ory system				
Objectives	Under	stand the	basic knowledge of respin	ratory and	excreto	ory syst	em				
	Know a	bout the	anatomy of endocrine an	d reproduc	ctive sys	stem					
	Learn t	he classif	ication of nervous system								
	On con	npletion	of the course, the student	ts will be a	ble to					BT Ma	pping
Course	CO1	Understa	and the structure of cell ar	nd the cell	organel	les				(Highes) K	t Level) 3
Outcome	CO2	Enable t	he students to know abou	it the com	oosition	of blo	od and fur	nctions	of	K	3
		circulato	ory system.								
	CO3	Know the	e depth knowledge of resp	piratory an	d excret	tory sy	stem.			K	3
	CO4	Obtain t	he knowledge about the r	eproductiv	ve and e	ndocri	ne system			K	3
	CO5 Get acquainted about the structure and functions of sense organs and nervous									K	3
	system.										
UNIT-I	Cell						Periods	: 12		i	
Structur	e, types	and funct	tions of cell and cell organ	elles							CO1
UNIT-II	Blood	and circ	ulatory system				Periods	s:12			
Blood – Co	ompositi	on and fu	nctions, Types – WBC, RB	C – structu	re and f	functio	ns –				CO2
Erythropo	iesis – R	eticulo E	ndothelial System – defini	tion and fu	nctions						
, , . Heart and	circulati	on – stru	, cture, properties of cardia	ic muscle.	cardiac	cvcle					
	Rosni	ratory an	d excretory system			eyelei	Dorioda	s•17			
Respirator	v system	n — struct	ure and functions				T CHOUS). 12			
Excretory	system –	- nhysiolo	ogy of urinary system – str	ucture of k	idnev a	nd ner	hron forr	nation	ofurine	٩	CO3
Skin – stru	icture an	nd functio	ons – regulation of body te	emperature	e.					-	
UNIT-IV	Endocr	ine and r	eproductive system				Periods	s:12			
Endocrine	System -	- Structur	e and functions of thyroid	, pituitary,	parathy	yroid, a	adrenal, isl	lets of			CO4
langerhan	s of pane	creas									
Reproduct	' tive syste	em – anat	omy of male and female r	enroductiv	/e orgar	าร					
		-	·	eproducer	ie orgai	10	Periode	s·17			
	Nervou	us system	and sense organs	~							
General c	lassificat	ion of ne	rvous system – structure o	of nerve ce	II and sp		ord – basic	: KNOWI	edge of	different	CO5
parts of tr	ne prain ans – str	– anaton Tucture ar	iy and functions of eveland ea	um, cerebe	anum ar A smoll	na meo	iulia obior	igata			
Lecture Period	s:60		Tutorial Periods:	Practic	al Perio	ds:-		Tota	l Perio	ds:60	
TextBooks	5.00	I		Tuctic						45.00	
1 Chatta		(2004) L	uman Dhysiology Volumo	I Modical		aonav	Kolkata				
	ijee.c.c i	(2004), n			Ameu A						
2. Chattei	rjee.C.C	(2004) <i>,</i> H	uman Physiology, Volume	II, Medica	Allied	Agency	, Kolkata.				
3. Sembu	lingam.K	(2000), E	Essentials of Medical Physi	iology, Jayı	bee Bro	thers N	Aedical Pu	blisher	s (P) Lto	d, New Del	ni.
ReferenceBook	(S				-		_				
 Bestan Chaudr 	d Taylor, ri. K, (199	, (1992), 93) Concis	The Physiological Basis for se Medical Physiology, Ne	Medical P w Central I	ractice, Book Ag	Saund ency (ers Compa Parentral)	iny. Ltd, Ca	lcutta.		
Web Reference	es										
1. <u>https:/</u> /	/www.re	egistered r	nursing.org/teas/general-a	natomy- p	hysiolog	<u>gy- hu</u>	<u>man.html</u>				
2. <u>https:/</u>	<u>/kidshea</u>	Ith.org/er	n/teens/heart.html								
3. <u>https://</u>	<u>/www.tu</u> /	itorialspo	int.com/excretory system	/index.asp ,		,	1				
4. <u>https:/</u>	<u>/www.er</u>	ndocrine.	org/topics/edc/what-edcs-	-are/comm	ion-edcs	s/repro	oduction				
. <u>nttps://</u>	<u>/ www.tu</u>	nonaispo	inc.com/what-is-the-functi	ion-or-ner	<u>uus-sys</u>	<u>tem</u>					

COs/POs/PSOs Mapping

COs	I	Program	n Outco	mes (PO	Os)	Program Specific Outcomes (PSOs)			
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	
1	3	2	2	1	2	2	1	2	
2	2	-	1	1	2	2	2	3	
3	3	3	3	2	3	3	3	2	
4	3	3	3	2	3	3	3	2	
5	3	3	3	2	3	3	3	2	

Correlation Level: 1 - Low, 2 - Medium, 3 - High

Evaluation Method

		Continu	ious Asse	(CAM)	End		
Assessment	CAT 1	CAT 2	Model Exam	Assignment*	Attendance	Semester Examination (ESE) Marks	Total Marks
Marks	1	0	5	5	5	75	100

Department	Comp	Computational Studies Programme: B.Sc Nutrition and Dietetics									
Semester	Seco	nd	Course	Categ	ory Cod	e: MLD End	l Semeste	⁻ Exam Typ	ວe: TE		
Course Code	A20CPI	0201D	Perio	ods/We	ek	Credit	Ma	ximum ma	ırks		
Course Name	Compu	iter Applications in Nutrition and	L 4	Т 0	Р 0	4	25	ESE 75	TM 100		
Prerequisite	Dieteti	CS									
rierequisite	Unders	tand the basics of computer									
Course	Unders	stand the functions of MS Office									
Objectives	Under	stand the knowledge of Internet									
	Unders	tand the knowledge of Networks and	Social Me	dia							
	Unders	stand the knowledge of digital techno	ology								
	On con	npletion of the course, the students	will be al	ole to				BT Ma (Highes	apping at Level)		
Course	CO1	Obtain the basic knowledge about C	Computer					К	2		
Outcome	CO2	Understand the operation in MS Of	fice					К	3		
	CO3	CO3 Obtain in depth knowledge of Internet K3									
	CO4	CO4 Get acquainted about networks and Social Media K3									
	CO5	Obtain in depth knowledge on Digita	al Technol	ogy				K	3		
UNIT-I	Introduction to Computers Periods : 12										
History of com	puters, G	Generations of Computers, Types of Computers,	Computer	– CPU,	Main Fr	ame, Super	Computer	,			
Workstation, D	igital & I	Electronic Computer, Hybrid, Mini, A	nalog, Mi	cro Con	nputer,	Mobile Com	puting,		CO1		
Embedded Syst	tem.										
UNIT-II	I Operating System & MS Office Periods:12										
Introducti	on to O	perating Systems, Windows Applicat	ions - MS	Word -	– Report	Generation	,		CO2		
MS Excel -	– Nutrie	nt Analysis, Dietary Intake & calculat	tions, Mer	nus, Rec	cipes, Nu	utritional					
Assessme	nt, Nutri	tion Education and Counselling, MS	Access – I	Maintai	ning pat	ients record	S				
and MS Pc	owerPoir	nt – Presentation based on diet coun	selling.								
UNIT-III	Interr	iet	-			Periods:12		-			
Genesis a Web Brow	and use o vsers – S	of Internet – Types of Connection – S ubject Gateways – Setting up email a	oftware a account	nd Haro	dware re	equirements	- search ei	ngines –	CO3		
UNIT-IV	Compu	iter Networks & Multimedia				Periods:12					
Compute	r Netwo	rks - LAN, WAN, MAN, Types of Topo	logv. Guid	led Med	dia. Ung	uided Media	. modem.		CO4		
Multimed	ia – Intro tics	oduction, Hard wares, Soft wares, and	d Applicat	ions of	Multime	edia in Nutri	tion				
UNIT-V		Digital Technology in Nutrition and	Dietetics			Periods:12					
	030 01	Digital recimology in Natition and	Dicteties								
Digital Teo Assessme	chnology nt, Wea	in Nutrition and Dietetics – Mobile A rable devices for Dietary Assessmen	App, Wea t, Telehea	rable te lith for (chnolog counsell	ies – Smart v ing the patie	watches fo ent.	or Nutritio	n CO5		
Lecture Period	s:45	Tutorial Periods:15	Practica	al Perio	ds:-	Т	otal Perio	ds: 60			
TextBooks											
1 Subran	aanian (Introduction to Computers 5 Chan	d Dublich	are 201	0						
1. Subran		s, introduction to computers, s.chan		liching (0. Colled	Now Dolbi 7	017				
		extering Microsoft Office Wheelers	wiilli PUD			ivew Delfil 2	.017.				
3. Nagpai	. D.P, IVI	uniter Applications in Nutrition and I	vuolisning Sieteties	, New L		J/.					
4. JOINU	ria, COM	iputer Applications in Nutrition and L	Jelelics,	ayiora	inu Frañ	UIS, 2022.					
1. Saxena S M	κ ο ΔS Offica	2000 for Everyone Vikas Publishing		irst Fdit	ion 2000	า					
2 Ahilva R Co	mnutar	Lucent Publications: VIII Edition 20	16								
Web Reference	es sin parel,										
1. <u>https://w</u>	vww.per	lego.com/book/1579810/computer	-applicati	ons-in-	nutritio	n-dietetics-a	n-annotat	ed-bibliog	<u>graphy-</u>		
pdf	•										

- Limketkai BN, Mauldin K, Manitius N, Jalilian L, Salonen BR. The Age of Artificial Intelligence: Use of Digital Technology in Clinical Nutrition. Curr Surg Rep. 2021;9(7):20. doi: 10.1007/s40137-021-00297-3. Epub 2021 Jun 8. PMID: 34123579; PMCID: PMC8186363.
- 3. <u>https://www.nibib.nih.gov/science-education/science-topics/telehealth</u>
- 4. <u>https://www.cisco.com/c/en_in/solutions/enterprise-networks/what-is-computer-networking.html</u>
- 5. <u>https://www.geeksforgeeks.org/types-of-internet-connection/</u>

COs/POs/PSOs Mapping

COs	I	Program	n Outco	mes (P	Os)	Program Specific Outcomes (PSOs)			
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	
1									
2									
3									
4									
5									

Correlation Level: 1 - Low, 2 - Medium, 3 - High

Evaluation Method

	(Continu	ious Asse	essment Marks	(CAM)	End	
Assessment	CAT 1	CAT 2	Model Exam	Assignment*	gnment* Attendance Semester (ESE) Marks		Total Marks
Marks 10		5	5	5	75	100	

Depart	ment	Food Science		Programme: B.Sc Nutrition and Dietetics									
Semest	ter	Second		Course	Categor	y Code:	SEC *E	ind Semest	er Exam T	Type: L E			
Courso	Codo			Perio	ds/Wee	ek	Credit	Ma	ximum M	larks			
Course	Coue	AZSINDLZUZD		L	Т	Р	С	CAM	ESE	TM			
Course	Name	NUTRITION SCI	ENCE PRACTICAL	0	0	6	3	50	50	100			
Prereq	uisite	Nutritive value	and estimation of nutrients	5		<u>-</u>							
_		Know the bio	ochemical reactions of	the nutri	ent								
Cours Objec	e tives	Understand 1	the techniques of estin	nating nu	trient	S							
Course Outcor	ne	On completion	n of the course, the students will be able to										
	-	Get acquainted	I with the nutritive calculati	on and est	imating	g of nutr	ients	~~~					
Experir	nnents:		- 1 1 - 1 - 1				Practical h	ours: 30					
1.	Planning and Nutritive value calculation and preparation of macro nutrient rich disnes -												
	Carboh	ydrate- Starch, F	-ibre, Protein and fat.										
3. 4. 5. 6. 7.	b. Qualita Qualita Qualita Standau Calcula	 a. Vitamins- Vitamin A, Vitamin C, Thiamine, Riboflavin and Niacin b. Minerals- Calcium, Iron, Zinc, Phosphorus, potassium Qualitative Analysis of Carbohydrates Qualitative Analysis of Proteins Qualitative Analysis of Minerals Standardization of Recipes 											
, . Lecture	- Periods	·	Tutorial Periods:	Practica	l Perio	ds: 30		Total Perio	ds: 30				
TextBo	oks	-											
1.	Swamir	hathan.M, Essen	tials of food and Nutrition,	Vol I and II	, Bappc	o Publis	hers, Mad	ras 2000.					
2.	Srilaksh	mi.B, Nutrition S	Science, New age internatio	onal (P) ltd	, publisł	ners, 200)4.						
3.	Yadav.S	5, Textbook of Nu	utrition and Health, Anmol	Publishers,	, 2002.	·							
	Referer	nce Books											
1.	Whitne	y.E. Rolfes R.S, L	Jnderstanding Nutrition, Ce	ngage Lea	rning, 2	010.							
2.	Robinso edition	on, C.H, Marilyn 1990.	Lawler. M Normal and The	rapeutic N	utrition	Paperba	ack Macmi	llan USA: X	VII Revise	؛d			

Evaluation Method

Internal Accessment			ESE	TOTAL		
internal Assessment	Model exam	am Record Attendance		MARKS	MARKS	
Marks	30	10	10	50	100	

Depart	ment	Food Science Programme: B.Sc Nutrition and Dietetics											
Semest	er	Second		Course	Categoi	ry Code:	SEC *E	nd Semest	er Exam T	ype: LE			
Course	Code			Perio	ods/We	ek	Credit	Ma	ximum M	arks			
course	COUE	AZSINDLZUSD		L	Т	Р	С	CAM	ESE	TM			
Course	Name	HUMAN PHYSIC	DLOGY PRACTICAL	0	0	6	3	50	50	100			
Prerequ	uisite												
Cours Objec	e tives	To determine Haemoglobir	e the procedure to to n, coagulation.	est the bloo	d smea	ar regai	rding blo	od group)S,				
	On completion of the course, the students will be able to												
Course Outcon	ne	Get acquainte coagulation. Re	d with procedure to t cording of pulse rate, e	est the bloo estimation of h	d sme nemogle	ar regai obin	rding bloo	od group	S,				
Experir	nnents:	-					Practical h	ours: 30					
2. 3. 4. 5. 6. 7. 8. 9. 10. 11.	Identifi Microso Estimat Identifi Determ Countir Determ Recordi Recordi	cation of slides copic examinatio ion of Haemoglo cation of Blood g ination of Bleed ng blood cells usi ination of arteria ing of Pulse rate ing of Glucose le ing of Body Mass	 Epithelial tissue and Name Epithelial tissue and Name Proprint of Fresh Blood Count, Standard Coagulation time Standard Coagulation Standard Coagulation 	Muscular tissu Blood smear e. emonstration Sphygmoman cise.	Je. and Sta of RBC ometer	ained Blo , WBC)	od Smear						
Lecture	e Periods	:	Tutorial Periods:	Practica	al Perio	ds: 30	٦	otal Peric	ods: 30	<u>.</u>			
TextBo	oks												
1.	Applied	Physiology – S.	Wright										
	Referer	nce Books											
1.	Bestand	d Taylor, (1992),	The Physiological Basis	for Medical Pi	ractice,	Saunder	s Company						
2.	Chaudr	i. K, (1993) Conc	ise Medical Physiology,	New Central E	Book Ag	gency (Pa	rentral) Lt	d, Calcutta	•				
	* TE	– Theory Exam,	LE – Lab Exam										

Evaluation Method

Internal Assessment			ESE	TOTAL	
internal Assessment	Model exam	Attendance	MARKS	MARKS	
Marks	30	10	10	50	100

Department	ENG	NGLISH Programme: B.Sc Nutrition and Dietetics										
Semester	Seco	nd		Co M	ourse LD	e catego	ory Code	e: End Se	mester	Exam Ty	/pe:- TE	
Course Code	٨23		C	Pe	erioc	ls / We	ek	Credit	Maxin	num Ma	rks	
	AZJI	LINSAUS			L	Т	Р	С	CAM	ESE	TM	
Course Name	COM	MUNIC	ATION SKILLS		3	0	0	3	25	75	100	
Prerequisite	Know	ledge ga	ined from Communicati	on and New	v pap	per read	ding			T		
	To im	prove th	e skill of rapid reading a	nd commur	nicat	e efficie	ently					
_	To de	code an	d impart speaking skills v	with confide	ence							
Course	To tra	in stude	nts in analyzing articles	and Newspa	aper							
Objectives	To en	hance th	ne sense of social respon	sibility and	ассо	ountabi	lity of th	ne studen	ts			
	To expound the significance in Managerial skills											
	On cor	npletion	of the course, the student	s will be able	e to					BT Ma (Highes	apping st Level)	
	CO1 understand the pattern to communicate effectively										(3	
Course	CO2	impart S	Speaking skills with self-o	confidence						К3		
Outcomes	CO3	enhanc	e their strategies in analy	yzing article	es an	d News	paper			K3		
	CO4 the sense of social responsibility and accountability of the students									k	(3	
	CO5	expertis	se in Managerial skills							k	(3	
UNIT-I	IIT-I COMMUNICATION SKILLS - SPEAKING Periods: 06											
1. Aspects of	speakin	g										
2. Process of	effectiv	e Speecl	า								CO1	
3. Technique	s for eff	ectual P	resentation									
UNIT-II	SELF	-MANA	GEMENT SKILLS					Periods	s: 0 6		i	
1. Time Mana	agement	[
2. Stress Man	agemer	nt									CO2	
3. Emotional	Manage	ement										
UNIT-III	CON		CATION SKILLS - READII	NG				Periods	s: 0 6		<u>.</u>	
1. Article ana	lysis											
2. Comprehe	nsion										CO3	
3. Skimming a	and Scar	nning										
UNIT-IV	SOC	IAL SKIL	LS					Periods	s: 0 6			
1. Leadership												
2. Teamwork											CO4	
3. Decision m	aking											
UNIT-V	PUBL	IC SPEA	KING AND PRESENTAT	ION				Period	s: 06			
1. Rules and T	echniqu	les for P	ublic Speaking								CO5	
2. Practice ses	sion (bo	oth, Pub	lic Speaking and Present	ation)								
Lecture Periods	5: -		Tutorial Periods: -	Pr	actio	al Peri	ods: 30	Tota	l Period	ls: 30		
Text Books												
1. Barun k	. Mitra,	Person	ality Development and So	oft skills, Ox	ford	Univer	sity Pre	ss, 2 nd Ed	ition, 20	016.		
2. Syamala, V, L	Effective	English (Communication for you, Che	ennai: Emera	ald Pu Proce	וblisher, מייה ס nd	1 st Editio	on, 2002.				
S. Sanjay Kuma Reference Roo	n aruspi nkc	ILALA. CO	minumcution Skills, Oxford	oniversity P	1855,	2 Eult	1011, 2013	ر.				
INCIEI EIICE DUU	νNO											

- Murphy, John J, Pulling Together: 10 Rules for High-Performance Teamwork, Simple Truth Publication, 1st Edition, 2010.
- 2. Balasubramanian, T, A Textbook of English Phonetics for Indian Students, Trinity Press, 1st Ed, 1981.
- 3. Sardana, C.K, *The Challenge of Public Relations*, New Delhi: Harnand Publication, 1st Edition, 1995.
- 4. Sabina Pillai, Agna Fernandez, Soft Skills and Employability Skills, Cambridge University Press, 2017.
- 5. Jeff Butterfield, *Soft Skills for Everyone*, Cengage India Private Limited, 2nd Edition, 2020.

Web References

- 1. <u>https://blog.dce.harvard.edu/professional-development/10-tips-improving-your-public-speaking-skills</u>
- 2. <u>https://corporatefinanceinstitute.com/resources/careers/soft-skills/management-skills/</u>
- 3. <u>https://zety.com/blog/how-to-introduce-yourself</u>
- 4. https://www.butte.edu/departments/cas/tipsheets/readingstrategies/skimming_scanning.html
- 5. https://www.mayoclinic.org/tests-procedures/stress-management/about/pac-20384898

COs		Progra	m Outcome	es (POs)		Program Specific Outcomes (PSOs)			
COS	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	
1	3	3	3	2	3	1	3	3	
2	3	3	3	2	3	1	3	2	
3	3	3	3	2	2	1	3	2	
4	3	3	3	3	3	1	3	2	
5	3	3	2	2	2	1	2	2	

* TE – Theory Exam, LE – Lab Exam

Correlation Level

High	Moderate	Low
3	2	1

Evaluation Method

	(Continu	ious Asse	essment Marks	(CAM)	End	
Assessment	CAT 1	CAT 2	Model Exam	Assignment*	Attendance	Semester Examination (ESE) Marks	Total Marks
Marks	1	0	5	5 5		75	100

Department	Food	Science		Programme: B.Sc Nutrition and Dietetics							
Semester	Seco	nd		Course cate	egory Co	ode: VAC	End	Semeste	er Exam	Type:-LE	
				Periods / W	eek		Credit	Maxim	um Mar	ks	
Course Code	A23V/	4C202C		L	Т	Р	С	CAM	ESE	TM	
Course Name	Enviro	onment	al Studies	2	0	0	2	100	0	100	
(Common to all L	JG Pro	gramme	es)								
Prerequisite	Basic factor	knowle srelate	dge of biology, physics tonature or environme	, chemistry, metec ent	orology,	related b	asic soc	o -cultu	re conce	epts,	
Course	To kn	ow the	structure and function	of an ecosystem					С	01	
Objective	To im its cor	bibe an nservati	aesthetic value with re on and appreciate the	espect to biodivers concept of interd	sity, und epender	erstand t nce	the threa	atsand	CO2		
	To kn	ow the	causes of types of pollu	ution and disaster	manage	ment			C	03	
	To ob	serve ai	nd discover the surrou	nding environmen	nt throug	h field w	ork		C	04	
	To know the structure and function of an ecosystem									:05	
	On co	mpletic	on of the course, the stu	udents will be able	e to				BT M (Highe	apping st Level)	
	CO1	Under	stand about the variou	us resources					ŀ	K3	
Course Outcome	CO2	Learn	about the biodiversity	,					КЗ		
	CO3	Learn	the different types of p	pollution and to pr	Ilution and to prevent the pollution						
	CO4	Know	about the pollution Ac	ct					ŀ	(3	
	CO5	Obser	ve various environmen	tal issues in surro	undings				ŀ	(3	
UNIT-I	ENV	IRONM	ENTAL SCIENCES: NAT	URAL RESOURCES	5		Perio	ds: 06			
Environmental resources – Min pattern - Enviro	Scienc eral re nmen	es - Rele sources tal impa	evance - Significance - s - Food resources - co act - fertilizer - Pesticid	Public awareness nflicts over resou le Problems - case	- Forest rce shari studies	resource ng - Expl	es – Wat oitation	er – Land (use	CO1	
	Т										
UNIT-II	ECO	SYSTEN	I, BIODIVERSITY AND I	TS CONSERVATIO	N		Perio	ds: 06		•	
Ecosystem - cor web - Ecologica Definition - gen national (India) Exsitu.	ncept - I pyrar etic, si andlo	structu nids - E pecies a cal leve	ire and function - proc nergy flow - Forest, Gr nd ecosystem diversit ls - Hotspots, threats t	lucers, consumers rassland, desert ar y - Values and use o biodiversity - co	s and de nd aquat es of bioc onservati	compose tic ecosy diversity ionof bio	ers - Foo stem.Bio -biodive diversity	d chain odiversit rsity at (y – Insitu	-Food y - global, u &	CO2	
UNIT-III	ENV	IRONM	ENTAL POLLUTION AN	D MANAGE			Perio	ds: 06			
Environmen	tal Pol	lution -	Causes - Effects and co	ontrol measures o	of Air, W	ater, Ma	rine, soi	l, solid		CO3	
waste,Thern	nal,Nu	clear po	llution and Disaster Ma	anagement - Flood	ds, Earth	quake, C	Cyclone a	and Land	lslides.		
Role of indiv	viduals	inpreve	ention of pollution - po	ollution case studi	es						
UNIT-IV	SOC	AL ISSU	IES - HUMAN POPULA	TION			Perio	ds: 06			
Urban issues - E Rehabilitation is and forest cons Environmental -Public awarene	Energy ssues - ervatio Health ess -Ca	- water Enviro on Act - - HIV/A se studi	conservation - Enviro nmental legislations - E Population growth an AIDS - Role of IT in Envi es.	nmental Ethics - G Environmental pro d Explosion - Hun ironment and Hur	Global w oductior nan right man Hea	arming – Act. 198 Is and Va Ilth - Wo	- Resettl 36 - Air, V alueEduc menand	ement a Water, W cation - child w	nd /ildlife elfare	CO4	
Lecture Periods:	30		Tutorial Periods: -	Practical P	eriods:		Tota	l Period	s: 30	.L	
Text Books											

1. Bharucha Erach, "Textbook of Environmental Studies for Undergraduate Courses", Orient BlackSwan, 2nd Edition, 2013. 2. Basu Mahua, Savarimuthu Xavier, "Fundamentals of Environmental Studies", Cambridge, 2ndEdition, 2017.3. Agarwal, K.C. "Environmental Biology", Nidi Publications, 1st Edition, 2004 **Reference Books** 1. Kumarasam, Alagappa Moses & Vasanthy, "Environmental Studies", Bharathidasan University Publications, 1st Edition.2004. 2. Rajamannar, "Environmental Studies", EVR College Publications, 1st Edition, 2004. Kalavathy Environmental Studies", Bishop Heber College Publications, 1st Edition, 2004. Web References 1. https://aits-tpt.edu.in/wp-content/uploads/2018/08/Environmental-Studies-Lecture- notes.doc- I_Betech_-ECE-CSE-EEE-CEME_III-Sem_BR.pdf 2. http://eagri.org/eagri50/ENVS302/pdf/lec05.pdf 3. https://www.youtube.com/watch?v=78prsPYm98g 4. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2792934/

https://www.frontiersin.org/articles/505570

* TE – Theory Exam, LE – Lab Exam

Evaluation Method

		ESE	TOTAL		
Marks Distribution	CAT I & CAT II	Report	Attendance	MARKS	MARKS
Distribution	70	20	10	-	100

* Application oriented / Problem solving / Design / Analytical in content beyond the

syllabus

Department	Food	Science	Programm	Programme: B.Sc Nutrition and Dietetics					
Semester	Seco	nd	Course cat	Course category Code: VAC End Semeste				r Exam	Type:-LE
Course Code	A22)/AC201C		Periods / W	<u>Periods / We</u> ek			M <u>axim</u>	M <u>axim</u> um Ma <u>rk</u> s	
Course Code	AZ3V	ACZUIC	L	T P C CAM		CAM	ESE	TM	
Course Name	Unde	erstanding India	2	0	0	2	100	0	100
(Common to all L	JG Pro	grammes)							
Prerequisite	Basic	: Knowledge of geography, kn	owledge systems	and the	Constitu	itions of	India		
Course	To ur	derstand the Geography of In	ndia					C	01
Objective	To kn	ow more about the India's fre	edom struggle ar	nd knowl	edge sys	stems		C	02
	To ur	derstand the myths, folklore	and tribal cultures	s of India				C	03
	To kn	ow about the social structure	, caste, communit	ty class a	nd gend	er		C	04
	To ur const	nderstand the evolution of sta- itution	tes, nature, tradit	ional and	d moder	n and th	e Indian	C	:05
	On co	ompletion of the course, the st	udents					BT Mapping (Highest Level)	
	CO1 Understood the Geography of India						К3		
Course Outcome	CO2 Acquainted knowledge about the India's freedom struggle and knowledge systems						КЗ		
	CO3 Understood the myths, folkfore and tribal culture of India						К3		
	CO4 Gained knowledge about the social structure, caste, community and gender						КЗ		
	CO5 Understood the evolution of states, nature and tradition of Indian Constituion.					l	K 3		
UNIT-I	Geo	graphy of India				Perio	ds: 06		
• Ind • Ge	ia on ograp	the map of the world and phical diversities	d its neighbouri	ng cou	ntries				CO1
UNIT-II	Hist	ory of India				Perio	ds: 06		
India'sAn intr	Free	edom Struggle tion to Indian knowledge	systems						CO2
UNIT-III	Con	municating Culture		Periods: 06					.1
Oral na Introdu	arrati	ves: Myths, tales and folk	klore India						СОЗ
	Indian Social Structure								
						Perio	15.00		CO4
Contin Class	uity a and (and change of the Indian Gender	Social Structure	e: Cast	e, Com	munity	,		604
UNIT - V	Unc	lerstanding Indian Polity				Peri	ods: 06		.i
The exInterprConsti	olutio etatir tutior	on of State in India: Natur ng India: Traditional, Mod n as a living document	re and origin ern and Conter	mporary	y				CO5

Lecture Periods: 30	Tutorial Periods: -	Practical Periods:	Total Periods: 30
Text Books			

- Ramesh Dutta Dikshit, *Political Geography: Politics of Place and Spatiality of Politics,* Macmillan Education,2020.
- Pathak, C. R. 2003: Spatial Structure and Processes of Development in India. Regional Science Assoc., Kolkata.
- Bose D. M., S. N. Sen and B. V. Subbarayappa ed. (1971) *A Concise History of Science in India,* Indian National Science Academy, New Delhi.
- Chandra, Bipan, Amales Tripathi & Barun De (1972), *Freedom Struggle*, National Book Trust, New Delhi.
- The Cultural Heritage of India Series, 8 Volumes (2002), Ramakrishna Mission Institute, Calcutta.
- Stuart H. Blackburn, "The Folk Hero and Class Interests in Tamil Heroic Ballads", Asian Folklore Studies, Vol. 37, No. 1 (1978), pp. 131-149.
- Beatrix Hauser, "From Oral Tradition to "Folk Art": Reevaluating Bengali Scroll Paintings", in Asian Folklore Studies, Vol. 61, No. 1 (2002), pp. 105-122.
- Singh, Y. (1968). Caste and Class : Some Aspects of Continuity and Change. Sociological Bulletin, 17(2), 165–186. <u>https://doi.org/10.1177/0038022919680205</u> Singh, Y. (1986). Modernization of Indian Tradition: A Systemic Study of Social Change. India: Rawat Publications
- Thapar, Romila. *Indian Cultures as Heritage: Contemporary Pasts*. London, Seagull Books, 2021

Reference Books

- Tiwari, R.C. (2007) Geography of India. Prayag Pustak Bhawan, Allahabad 12. Sharma, T.C. (2013) Economic Geography of India. Rawat Publication, Jaipur
- Husain, S. Abid. (2003). The National Culture of India, National Book Trust, New Delhi.
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- Mohanta, Basant Kumar and Vipin Kumar Singh ed. (2012), Traditional *Knowledge System and Technology in India*, Pratibha Prakashan
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- Robinson, R. (2004). Sociology of Religion in India. India: SAGE Publications.
- Srinivas, M. N. (2000). Caste: Its 20Th Century Avatar. India: Penguin Books Limited.
- Jamil, G. (2021). Women in Social Change. SAGE Publishing India.
- Bhasin, K. (2000). Understanding Gender.
- Venkataraghavan Subha Srinivasan. *The Origin Story of India's States*. Penguin Random House India Private Limited, 25 Oct. 2021.
- J Sai Deepak. India That Is Bharat : Coloniality, Civilisation, Constitution. New Delhi, Bloomsbury, 2021.

Evaluation Method

		ESE	TOTAL		
Marks Distribution	CAT I & CAT II	Report	Attendance	MARKS	MARKS
Distribution	70	20	10	-	100

* Application oriented / Problem solving / Design / Analytical in content beyond the syllabus

A23XXCXXXD	CERTIFICATION COURSES		т	Ρ	C	Hrs
		0	0	4	0	40

Students shall choose an International certification course offered by the reputed organizations like Google, Microsoft, Information Technology Specialist, Project Management Institute, Adobe, CISCO Networking Academy, AWS Academy, Tally and Autodesk, Eplan, etc. The duration of the course is 40 hours specified in the curriculum, which will be offered through Centre of Excellence.

Pass /Fail will be determined on the basis of participation, attendance, performance and completion of the course.

If a candidate Fails, he/she has to repeat the course in the subsequent years. Pass in this course is mandatory for the award of degree.