



हेमचंद यादव विश्वविद्यालय, दुर्ग (छ.ग.)

(पूर्व नाम- दुर्ग विश्वविद्यालय, दुर्ग)

रायपुर नाका, दुर्ग (छ.ग.)-491001

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क्र. 1626 / अका. / 2024

दुर्ग, दिनांक : ...01/07/2024

प्राचार्य,

समस्त संबद्ध महाविद्यालय,
हेमचंद यादव विश्वविद्यालय,
दुर्ग (छ.ग.)

विषय:- स्नातक स्तर के नवीन पाठ्यक्रम के भाग-दो को सत्र 2024-25 से विश्वविद्यालय में लागू करने विषयक।

संदर्भ:- अपर संचालक, उच्च शिक्षा संचालनालय, नवा रायपुर, अटल नगर का पत्र क्र. 3985/237/आउशि/2023, दिनांक 13.06.2023।

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विषयांतर्गत लेख है कि संदर्भित पत्र के माध्यम से प्राप्त स्नातक स्तर भाग-दो के निम्नलिखित कक्षा/विषयों के परिवर्तित/संशोधित पाठ्यक्रम शिक्षा सत्र 2024-25 से लागू किये जाते हैं:-

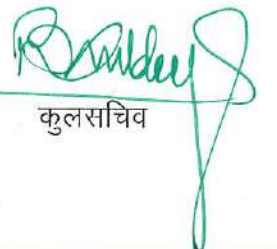
- | | | |
|----------------------------|---|--|
| 1. बी.ए. | — | आधार पाठ्यक्रम—हिन्दी भाषा, अंग्रेजी भाषा, हिन्दी साहित्य, अंग्रेजी साहित्य, राजनीतिशास्त्र, अर्थशास्त्र, नृत्य, दर्शनशास्त्र, समाजशास्त्र, इतिहास, संस्कृत, मानवविज्ञान, भूगोल, मनोविज्ञान, कम्प्यूटर। |
| 2. बी.एस-सी. | — | आधार पाठ्यक्रम—हिन्दी भाषा, अंग्रेजी भाषा, जीव विज्ञान, मानवविज्ञान, गणित, बायोटेक्नोलॉजी, कम्प्यूटर साईंस, भौतिकी, प्राणीशास्त्र, भूविज्ञान, आई.टी., सूक्ष्मजीवविज्ञान, वनस्पतिशास्त्र, इलेक्ट्रॉनिक्स, रसायन शास्त्र, भूगोल। |
| 3. बी.एस-सी. (गृह विज्ञान) | — | आधार पाठ्यक्रम — हिन्दी भाषा, अंग्रेजी भाषा एवं गृह विज्ञान। |
| 4. बी.कॉम. | — | आधार पाठ्यक्रम — हिन्दी भाषा, अंग्रेजी भाषा एवं वाणिज्य। |
| 5. विधि | — | एल.एल.बी., बी.ए.एल.एल.बी |
| 6. प्रबंध | — | बी.बी.ए. |
| 7. कम्प्यूटर | — | बी.सी.ए. |
| 8. शिक्षा | — | बी.एड. |
| 9. लाईब्रेरी साईंस | — | बी.लिब. |

उपरोक्त विषयों को शिक्षा सत्र 2024-25 से संशोधित रूप में स्नातक स्तर भाग-दो के लिए लागू किया जाता है स्नातक स्तर भाग तीन के पाठ्यक्रम यथावत रहेंगे।

अतः आपसे अनुरोध है कि पाठ्यक्रम परिवर्तन/संशोधन से महाविद्यालय के शिक्षकों एवं छात्र-छात्राओं को अवगत कराने का कष्ट करेंगे।

टीप :- परिवर्तित/संशोधित पाठ्यक्रम विश्वविद्यालय की वेबसाइट पर उपलब्ध है।

संलग्न : उपरोक्तानुसार।


कुलसचिव

क्र. 1627 /अका./2024

दुर्ग, दिनांक 01/07/2024

प्रतिलिपि:-

1. अपर संचालक, उच्च शिक्षा संचालनालय, नवा रायपुर, अटल नगर का पत्र क्र. 3985/237/आउशि/2023, दिनांक 13.06.2023 के परिपेक्ष्य में सूचनार्थ।
2. कुलपति के निज सहायक एवं कुलसचिव के निज सहायक, हेमचंद यादव विश्वविद्यालय, दुर्ग।
3. उपकुलसचिव, परीक्षा विभाग एवं उपकुलसचिव, गोपनीय विभाग हेमचंद यादव विश्वविद्यालय, दुर्ग।


सहा. कुलसचिव (अका.)

General Information of B.Sc. Home Science Program

1. **Title and code of the program:** The title of the programme shall be Bachelor of Home Science (B.Sc. H.Sc.) The program code of B.Sc. Home Science shall be "HSc2022".
2. **Eligibility for admission:** Eligibility of admission in B.Sc. Home Science will be as follow:
 - i. Students must pass H.Sc. (Class 12th) in any stream/Three year diploma course in any branch of technical education / Vocational Education or equivalent from a recognized board.
 - ii. Students must have a minimum aggregate of 40% marks in HSc examination (Relaxation in percentage will be as per rule of C.G. Govt.).
3. **Scheme of examination:** Each theory paper is divided into three components as follow, there shall not be any Internal Assessment (IA) for practical part of every subject :-
 - i. Total Marks:100 Marks
 - ii. University Examination (UE): 60 Marks
 - iii. Internal Assessment (IA): 15 Marks
 - iv. Practical : 25 Marks
4. **Internal Assessment (IA):** The structure of IA shall be as follow:
 - i. **Internal test (15 Marks):** There shall be two internal tests of 15 marks each, the average of both tests shall be considered as the marks of internal test. The marks of assignment shall be of 15, the average of the both tests shall be added with marks of assignment, and the total will be divided by two.
5. **University Examination (UE):** The pattern of examination shall be as follow:
 - i. There shall be three sections of question paper: A, B and C.
 - ii. Section A (20 Marks) shall consists "Very Short Answer questions", Three questions from each unit with internal choice of solving two.
 - iii. Section B (20 Marks) shall consist of "Short answer questions" from each unit, two questions from each unit with internal choice of solving one.
 - iv. The Section C (20 Marks) shall consist "Long answer questions", one from each unit, with internal choice of solving any two questions, each has 10 marks.
6. **Programme Learning Outcomes (PLO):** On completion of this programme, the students are expected to:

PLO1: To Apply knowledge of Basic Nutrition, Textile and Fibre Science, Resource Management , Community Development , Human Development with basic knowledge of women empowerment and Computer Basics at the individual level , community level and also on commercial level.

PLO2: To apply knowledge of nutrition as Medical Nutrition Therapy for disease correction, Technical knowledge of physio-chemical nature of textile fibres and yarn making, working of various systems in human body, Skillful communication techniques, Developmental stages in life cycle and consumer economics related knowledge.

PLO3: To apply knowledge of Biochemistry of Macro molecules as Protein, Lipids, Carbohydrates and Micro-Molecules as Vitamin, Minerals, Antioxidants, Preservation Technology, Extension education for the community and national benefit, Care of human in early years of life, Principles of Art and Designing and skills of apparel making with fashion designing.

PLO4: To apply new technology in the field of Nutrition as Neutrogenomics, Nanotechnology for Medical Nutrition Therapy, Management of human resources properly, advances in Textile science, advances in Human developments as maintenance of good mental health and Research Methodology with latest data collection and analysis details in the field of Home Science Research.



B.Sc. (HOME SCIENCE)

Year	Course Code	Subject Name	Theory / Practical	Total Credit	Marks			
					UE	IA	Total	
							Max	Min
First	HSCF-1T	Environmental studies	Theory	4	60	15	75	25
	HSCF-2T	Hindi Language	Theory	4	60	15	75	25
	HSCF-3T	English Language	Theory	4	60	15	75	25
	HSC-1T	Basic Nutrition	Theory	4	60	15	75	25
	HSC-2T	Introduction to Resource Management	Theory	4	60	15	75	25
	HSC-3T	Introduction to Human Development	Theory	4	60	15	75	25
	HSC-4T	Textile and Clothing	Theory	4	60	15	75	25
	HSC-5T	Community Development	Theory	4	60	15	75	25
	HSC-6T	Personal Empowerment and Computer Basics	Theory	4	60	15	75	25
	HSCF-1P	Environmental Study Field work	Practical	2	25	NA	25	25
	HSC-1P	Basic Nutrition	Practical	2	25	NA	25	09
	HSC-2P	Introduction to Resource Management	Practical	2	25	NA	25	09
	HSC-3P	Introduction to Human Development	Practical	2	25	NA	25	09
	HSC-4P	Textile and Clothing	Practical	2	25	NA	25	09
	HSC-5P	Community Development	Practical	2	25	NA	25	09
	HSC-6P	Personal Empowerment and Computer Basics	Practical	2	25	NA	25	09
		Total			50	715	135	850

Second	HSCF-4T	Hindi Language	Theory	4	60	15	75	25
	HSCF-5T	English Language	Theory	4	60	15	75	25
	HSC-7T	Nutritional Management in Health & Diseases	Theory	4	60	15	75	25
	HSC-8T	Textile and Fiber Science	Theory	4	60	15	75	25
	HSC-9T	Human Physiology and Community Nutrition	Theory	4	60	15	75	25
	HSC-10T	Communication Process	Theory	4	60	15	75	25
	HSC-11T	Life Span Development	Theory	4	60	15	75	25
	HSC-12T	Consumer Economics	Theory	4	60	15	75	25
	HSC-7P	Nutritional Management in Health and Diseases	Practical	2	25	NA	25	09
	HSC-8P	Textile and Fiber Science	Practical	2	25	NA	25	09
	HSC-9P	Human Physiology and Community Nutrition	Practical	2	25	NA	25	09
	HSC-10P	Communication Process	Practical	2	25	NA	25	09
	HSC-11P	Life Span Development	Practical	2	25	NA	25	09
	HSC-12P	Consumer Economics	Practical	2	25	NA	25	09
	Total			44	630	120	750	

Third	HSCF-6T	Hindi Language	Theory	4	60	15	75	25	
	HSCF-7T	English Language	Theory	4	60	15	75	25	
	HSC-13T	Nutritional Biochemistry	Theory	4	60	15	75	25	
	HSC-14T	Food Preservation	Theory	4	60	15	75	25	
	HSC-15T	Early Childhood Care and Education	Theory	4	60	15	75	25	
	HSC-16T	Extension Education	Theory	4	60	15	75	25	
	HSC-17T	Foundation of Art and Design	Theory	4	60	15	75	25	
	HSC-18T	Apparel Making and Fashion Designing	Theory	4	60	15	75	25	
	HSC-13P	Nutritional Biochemistry	Practical	2	25	NA	25	09	
	HSC-14P	Food Preservation	Practical	2	25	NA	25	09	
	HSC-15P	Early Childhood Care and Education	Practical	2	25	NA	25	09	
	HSC-16P	Extension Education	Practical	2	25	NA	25	09	
	HSC-17P	Foundation of Art and Design	Practical	2	25	NA	25	09	
	HSC-18P	Apparel Making and Fashion Designing	Practical	2	25	NA	25	09	
		Total			44	630	120	750	

Note- There shall be four extra credits in each year for internship/ Apprenticeship .The certificate of extra credits for this would be provided by the concern university and it is not mandatory.

Abbreviations Used-

UE: University Examination

IA: Internal Assessment

Note:

1. Students have to pass the Environment Studies (Additional & Compulsory) till the end of the maximum duration provided for the program. Degree will not be awarded without passing the environmental studies paper.
2. There shall be four extra credits in all the years of under graduation for internship/apprenticeship/Skill development program/Value added program. The certificate of extra credits would be provided by the university concern and is not mandatory.

B.Sc. (CLINICAL NUTRITION)**(Student drops Botany, instead study Clinical Nutrition)**

Year	Course Code	Subject Name	Theory / Practical	Total Credit	Marks			
					UE	IA	Total	
							Max	Min
First	CN-1T	Anatomy and Physiology	Theory	4	60	15	75	25
	CN-2T	Physiology and Basic Nutrition	Theory	4	60	15	75	25
	CN -1P	Anatomy and Physiology	Practical	2	50	NA	50	17
Second	CN-3T	Biochemistry and Microbiology	Theory	4	60	15	75	25
	CN-4T	Basic Dietetics and Community Nutrition	Theory	4	60	15	75	25
	CN -2P	Biochemistry and Microbiology	Practical	2	50	NA	50	17
Third	CN-5T	Nutrition for Health and Fitness	Theory	4	60	15	75	25
	CN-6T	Advanced Dietetics	Theory	4	60	15	75	25
	CN -3P	Advanced Dietetics	Practical	2	50	NA	50	17

Note- There shall be four extra credits in each year for internship/ Apprenticeship .The certificate of extra credits for this would be provided by the concern university and it is not mandatory.

The foundation courses will be as per common syllabus of any B.Sc. program me.

Abbreviations Used- UE: University Examination IA: Internal Assessment

B.Sc. (Food Science & Quality Control)

(Student drops Botany, instead study Food Science and Quality Control)

Year	Course Code	Subject Name	Theory / Practical	Total Credit	Marks			
					UE	IA	Total	
							Max	Min
First	FQ-1T	Basic Nutrition and Food Chemistry	Theory	4	60	15	75	25
	FQ-2T	Food Microbiology and Sanitation	Theory	4	60	15	75	25
	FQ-1P	Food Microbiology	Practical	2	50	NA	50	17
Second	FQ-3T	Food Preservation, Sensory Evaluation and Food Packaging	Theory	4	60	15	75	25
	FQ-4T	Post Harvest Technology and Analytical Instrumentation	Theory	4	60	15	75	25
	FQ-2P	Analytical Instrumentation	Practical	2	50	NA	50	17
Third	FQ-5T	Food Analysis and Food Toxicology	Theory	4	60	15	75	25
	FQ-6T	Food Manufacturing, Adulterating and Testing	Theory	4	60	15	75	25
	FQ-3P	Food Analysis	Practical	2	50	NA	50	17

Note- There shall be four extra credits in each year for internship/ Apprenticeship .The certificate of extra credits for this would be provided by the concern university and it is not mandatory.

The foundation courses will be as per common syllabus of any B.Sc. programme.

Abbreviations Used- UE: University Examination IA: Internal Assessment

हिंदी भाषाकेव्याकरण के रचना पक्ष का ज्ञान, संप्रेषण कौशल, सामाजिकसंदेश एवं भाषायी दक्षता की दृष्टि तथा नई शिक्षा नीति के उद्देश्य को ध्यान में रखकर पाठ्यक्रम का निर्माण किया गया है।

बी.ए./ बी.एस-सी./ बी.कॉम./ बी.एच.एस.सी. भाग- दो
(आधार पाठ्यक्रम)
प्रथम प्रश्नपत्र
हिंदी भाषा
कोड....

पूर्णांक 75
क्रेडिट 05

पाठ्यक्रम का उद्देश्य:-

- (1) गद्य विधाओंसे अवगत कराना एवं निबंध कौशल सिखाना।
- (2) कार्यालयीन हिंदी का ज्ञान प्रदान करना ।
- (3) हिंदी व्याकरण का समग्र ज्ञान प्रदान करना ।
- (4) हिंदी भाषा में प्रचलित विभिन्न शब्द रूपों से परिचित कराना।

पाठ्य विषय:-

इकाई 1. (क) नाखून क्यों बढ़ते हैं?: हजारी प्रसाद द्विवेदी (ख) कार्यालयीन भाषा, मीडिया की भाषा, वित्त एवं वाणिज्य की भाषा, मशीनी भाषा	अंक 15 18 कालखंड
इकाई 2. (क) युवकों का समाज में स्थान : आचार्य नरेंद्र देव (ख) हिंदी के तत्सम, तद्भव, देशज, विदेशी शब्द-परिचय,	अंक 15 18 कालखंड

2/2

23/2/23

23-2-2023

23/2/23

23/2/23

संज्ञा, सर्वनाम, *	
इकाई 3 (क)डॉ खूबचंद बघेल : हरि ठाकुर (ख)कारक, विशेषण, क्रिया विशेषण	अंक 15 18 कालखंड
इकाई 4 (क) एक पहाड़ीमैना की मौत : डॉ. कांति कुमार जैन (ख) समास, संधि	अंक 15 18 कालखंड
इकाई 5 (क) मातृभूमि : वासुदेव शरण अग्रवाल (ख)अनुवाद - परिभाषा, स्वरूप, प्रकार, स्रोत भाषा और लक्ष्य भाषा, अंग्रेजी से हिंदी में अनुवाद	अंक 15 18 कालखंड

मूल्यांकन योजना:-

प्रत्येक इकाई से एक-एक प्रश्न पूछे जाएंगे। प्रत्येक प्रश्न में आंतरिक विकल्प होगा। प्रत्येक प्रश्न के 15 अंक होंगे। प्रत्येक प्रश्न के दो भाग 'क' और 'ख' होंगे एवं अंक क्रमशः 08 एवं 07 होंगे। प्रश्नपत्र का पूर्णांक 75 निर्धारित है। प्रश्नपत्रके पूर्णांकका दस प्रतिशत अंक आंतरिक मूल्यांकनके लिए निर्धारित है।

पाठ्यक्रम अधिगम परिणाम:-

1. गद्य की विभिन्न विधाओं से परिचित हो सकेंगे एवं उनमें साहित्यिक रूझान पैदा होगा।
2. हिंदी के आधारभूत व्याकरणिक अवधारणाओं से विद्यार्थी परिचित हो सकेंगे। उनमें रचनात्मकता एवं भाषाकौशल का विकास होगा।
3. विभिन्न प्रतियोगी परीक्षाओं की तैयारी में यह पाठ्यक्रम सहायक होगा।

पाठ्यक्रम निर्माण का औचित्य :-

सुप्रसिद्ध विद्वानों के लेख/निबंध/संस्मरण के माध्यम से विद्यार्थियों के चिंतन परक दृष्टिकोण एवं व्यक्तित्व का विकास करते हुए उन्हें व्याकरणिक एवं भाषा-प्रयोग विषयक पक्ष से परिचित कराते हुए प्रतियोगी परीक्षाओं की दृष्टि से तैयार करने की दिशा में यह पाठ्यक्रम उपयोगी रहेगा।





 23/4/23

 23.2.2023

 23/4/23

BA/B.Sc./B.Com/B.Sc. Home.Sc. (Part-II)
Foundation Course Paper-II English Language

Max. Marks:75
 Total credits: 05

Qualifying Marks:26

Paper-II	Mark's	Period's	Credit
Unit-I English in Use: A Textbook for College Students (Semester III), Macmillan Publishers India Pvt Ltd	3x5=15	18	01
Unit -II Business Reports & Media Reports Writing Notices, Blog Writing	1x10=10	18	01
Unit -III Reading Comprehension (a) Unseen Passage (MCQ -based) (b) Vocabulary (Text-based)	1x5=05 1x10=10	18	01
Unit -IV Essay Writing: Discursive Essay, Argumentative Essay	1x10=10	09	0.5
Unit-V Grammar : <ul style="list-style-type: none"> • Ordering of words • Voice • Conditional sentences • Use of some, any, enough, too, otherwise, few, many, such, very • Prepositions • Question tags • Transformation of sentences (like-Simple to Compound to Complex, Exclamatory to Assertive) • Transformation of sentences with positive, Comparative and superlative degrees • Grammatical items given in the textbook 'English in Use' 	1x25=25	27	1.5
Total	75	90	05
Recommended Books- 1. Essential English Grammar, 2nd Edition by Raymond Murphy, Cambridge Publication 2. English Grammar in use 5th edition by Raymond Murphy, Cambridge Publication. 3. Advanced English Grammar by Martin Hewings Cambridge University Press.			

[Signature]
 11/07/2023
 C.P. C-Choudhury

Part - I
SYLLABUS FOR ENVIRONMENTAL STUDIES AND HUMAN RIGHTS
(Paper code-0828)

MM. 75

इन्वारमेंटल साईंसेस के पाठ्यक्रम को स्नातक स्तर भाग-एक की कक्षाओं में विश्वविद्यालय अनुदान आयोग के निर्देशानुसार अनिवार्य रूप से शिक्षा सत्र 2003-2004 (परीक्षा 2004) से प्रभावशील किया गया है। स्वशासी महाविद्यालयों द्वारा भी अनिवार्य रूप से अंगीकृत किया जाएगा।

भाग 1, 2 एवं 3 में से किसी भी वर्ष में पर्यावरण प्रश्न-पत्र उत्तीर्ण करना अनिवार्य है। तभी उपाधि प्रदाय योग्य होगी।

पाठ्यक्रम 100 अंकों का होगा, जिसमें से 75 अंक सैद्धांतिक प्रश्नों पर होंगे एवं 25 अंक क्षेत्रीय कार्य (Field Work) पर्यावरण पर होंगे।

सैद्धांतिक प्रश्नों पर अंक - 75 (सभी प्रश्न इकाई आधार पर रहेंगे जिसमें विकल्प रहेगा)

- | | | |
|----------------------|---|--------|
| (अ) लघु प्रश्नोंत्तर | - | 25 अंक |
| (ब) निबंधात्मक | - | 50 अंक |

Field Work - 25 अंकों का मूल्यांकन आंतरिक मूल्यांकन पद्धति से कर विश्वविद्यालय को प्रेषित किया जावेगा। अभिलेखों की प्रायोगिक उत्तर पुस्तिकाओं के समान संबंधित महाविद्यालयों द्वारा सुरक्षित रखेंगे।

उपरोक्त पाठ्यक्रम से संबंधित परीक्षा कक्षा आयोजन वार्षिक परीक्षा के साथ किया जाएगा।

पर्यावरण विज्ञान विषय अनिवार्य विषय है, जिसमें अनुत्तीर्ण होने पर स्नातक स्तर भाग-एक के छात्र/छात्राओं को एक अन्य विषय के साथ पूरक की पात्रता होगी। पर्यावरण विज्ञान के सैद्धांतिक एवं फील्ड वर्क के संयुक्त रूप से 33: (तीस प्रतिशत) अंक उत्तीर्ण होने के लिए अनिवार्य होंगे।

स्नातक स्तर भाग-एक के समस्त नियमित/भूतपूर्व/अमहाविद्यालयीन छात्र/छात्राओं को अपना फील्ड वर्क सैद्धांतिक परीक्षा की समाप्ति के पश्चात् 10 (दस) दिनों के भीतर संबंधित महाविद्यालय/परीक्षा केन्द्र में जमा करेंगे एवं महाविद्यालय के प्राचार्य/केन्द्र अधीक्षक, परीक्षकों की नियुक्ति के लिए अधिकृत रहेंगे तथा फील्ड वर्क जमा होने के सात दिनों के भीतर प्राप्त अंक विश्वविद्यालय को भेजेंगे।

UNIT-I THE MULTI DISCIPLINARY NATURE OF ENVIRONMENTAL STUDIES

Definition, Scope and

Importance Natural Resources:

Renewable and Nonrenewable Resources

- (a) Forest resources: Use and over-exploitation, deforestation, Timber extraction, mining, dams and their effects on forests and tribal people and relevant forest Act.
- (b) Water resources: Use and over-utilization of surface and ground water, floods drought, conflicts over water, dam' s benefits and problems and relevant Act.
- (c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources.
- (d) Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity.
- (e) Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources.
- (f) Land resources: Land as a resource, land degradation, man induced landslides soil erosion and desertification.

(12 Lecture)

UNIT-II ECOSYSTEM

(a) Concept, Structure and Function of and ecosystem

- Producers, consumers and decomposers.
- Energy flow in the ecosystem
- Ecological succession
- Food chains, food webs and ecological pyramids.
- Introduction, Types, Characteristics Features, Structure and Function of Forest, Grass, Desert and Aquatic Ecosystem.

(b) Biodiversity and its Conservation

- Introduction - Definition: genetic. species and ecosystem diversity
- Bio-geographical classification of India.
- Value of biodiversity: Consumptive use. Productive use, social ethics, aesthetic and option values.
- Biodiversity at global, National and local levels.
- India as mega-diversity nation.

- Hot spots of biodiversity.
- Threats to biodiversity: habitat loss, poaching of wildlife, man-wild life conflict.
- Endangered and endemic species of India.
- Conservation of biodiversity: In situ and Ex-situ conservation of biodiversity.

(12 Lecture)

UNIT- III

(a) Causes, effect and control measures of

- Air water, soil, marine, noise, nuclear pollution and Human population.
- Solid waste management: Causes, effects and control measures of urban and industrial wastes.
- Role of an individual in prevention of pollution.
- Disaster Management: floods, earthquake, cyclone and landslides.

(12 Lecture)

(b) Environmental Management

- From Unsustainable to sustainable development.
- Urban problems related to energy.
- Water conservation, rain water harvesting, watershed management.
- Resettlement and rehabilitation of people, its problems and concerns.
- Environmental ethics: Issues and possible solutions.
- Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust.
- Wasteland reclamation
- Environment protection Act: Issues involved in enforcement of environmental legislation.
- Role of Information Technology in Environment and Human Health.

UNIT- IV

General background and historical perspective- Historical development and concept of Human Rights, Meaning and definition of Human Rights, Kind and Classification of Human Rights. Protection of Human Rights under the UNO Charter, protection of Human Rights under the Universal Declaration of Human Rights, 1948. Convention on the Elimination of all forms of Discrimination against women. Convention on the Rights of the Child, 1989.

UNIT- V

Impact of Human Rights norms in India, Human Rights under the Constitution of India, Fundamental Rights under the Constitution of India, Directive Principles of State policy under the Constitution of India, Enforcement of Human Rights in India. Protection of Human Rights under the Human Rights Act, 1993- National Human Rights Commission, State Human Rights Commission and Human Rights court in India. Fundamental Duties under the Constitution of India.

Reference/ Books Recommended

1. SK Kapoor- Human rights under International Law and Indian Law.
2. HO Agrawal- Internation Law and Human Rights
3. एस.के. कपूर – मानव अधिकार
4. जे.एन. पान्डेय – भारत का संविधान
5. एम.डी. चतुर्वेदी –भारत का संविधान
6. J.N.Pandey - Constitutional Law of India
7. Agarwal K.C. 2001 Environmental Biology, Nidi pub. Ltd. Bikaner
8. Bharucha Erach, the Biodiversity of India, Mapin pub. Ltd. Ahmedabad 380013, India,
Email: mapin@icenet.net(R)
9. Bruinner R.C. 1989, Hazardous Waste Incineration. McGraw Hill Inc.480p
10. Clark R.S. Marine pollution, Clanderson press Oxford (TB)
11. Cuningham, W.P.Cooper. T.H.Gorhani, E & Hepworth. M.T,200
12. Dr. A.K.- Environmental Chemistry. Wiley Eastern Ltd.
13. Down to Earth, Center for Science and Environment (R)
14. Gloick, H.P. 1993 Water in crisis. pacific institute for studies in Deve. Environment & Security. Stockholm Eng. Institute. Oxford University, Press. m 473p.
15. Hawkins R.E. Encyclopedia of Indian Natural History, Bombay Natural History Society, Mumbai (R)

16. Heywood, V.H. & Watson, T.T.1995 Global Biodiversity Assessment, Cambridge Univ. Press 1140p
17. Jadhav H. & Bhosale, V.H. 1995 Environmental Protection and Law. Himalaya pub. House, Delhi 284p
18. Mckinney M.L.& School R.M.1996, environmental Science systems & solutions, web enhanced edition, 639p
19. Mhadkar A.K. Matter Hazardous, Techno-Science publication(TB)
20. Miller T.G.Jr. Environment Science, Wadsworth publication co. (TB)
21. Odum E.P.1971, Fundamentals of Ecology, W.B. Saunders Co. USA,574p
22. Rao M.N. & Datta, A.K. 1987, Waste water treatment. Oxford & IBH pub.co.pvt. Ltd 345p
23. Sharma B.K. 2001, Environmental chemistry, Goel pub. House, Meerut
24. Survey of the Environment, The Hidu(M)
25. Townsend C. Harper J. And Michael Begon, Essentials of Ecology, Blackwell Science(TB)
26. Trivedi R.K.Handbook of Environment Laws, Rules, Guidelines, Compliances and Standards, Vol land II, Environment Media(R)
27. Trivedi R.K. and P.K. Goel, Introduction to air pollution, Techno-Science publication (TB)
28. Wanger K.D.1998, Environmental Management. W.B. Saunders Co. Philadelphia, USA 499

Part A: Introduction			
Program: Diploma Course		Class: B.Sc. Home Science II Year	Year: 2022 Session: 2022:2023
1	Course Code	HSC-7T	
2	Course Title	Nutritional Management in Health and Diseases	
3	Course Type	Theory	
4	Pre-requisite (if any)	NO	
5	Course Learning Outcomes (CLO)	At the end of this course, the students will be able to: <ul style="list-style-type: none"> • To understand Importance of Meal Planning. • To understand Factors affecting nutritional requirements. • To understand Normal nutrition. • To understand Medical nutritional therapy in various diseases. • To understand Conversion of Normal Diet to Disease Specific Diet. 	
6	Credit Value	Theory: 4	
7	Total Marks	Max. Marks: 60+15	Min Passing Marks : 25

Part B: Content of the Course		
Total Periods: 60		
Unit	Topics	No. of Periods
I	Definition of Health and Nutrition: Dimensions of Health (Physical, Psychological, emotional and Spiritual). Concept of nutritionally adequate diet and meal planning: Importance of meal planning, Factors affecting meal planning- Nutritional, Socio-cultural, Religious, Geographic, Economic Availability of time.	12
II	Steps involved in planning a diet: RDA, Food list-using ICMR tables, using cooked food exchange list, Making Menu, The Food Guide-four food group plan of ICMR, Food Pyramid, and General Dietary Guidelines suggested by ICMR, Planning of balance diet-food composition tables, principles of planning diets, Planning diets for institutions.	12
III	Nutrition through the life cycle: (At different activity and Social economic levels) requirements, nutritional problems, food selection. Adulthood, Pregnancy, Lactation, Pre-School, Adolescence.	12
IV	Principles of diet therapy: Modification of Normal diet for therapeutic purposes, full diet, soft diet, Fluid diet, Bland diet, Energy modification and Nutrition for weight management-Identifying the overweight and obese, etiological factors contributing to Obesity. Prevention and treatment, low energy diets, Underweight –etiology and assessment.	12
V	Etiology: Symptoms and diet management of the following -Diarrhea, Constipation, Peptic ulcer, Jaundice, Viral Hepatitis, Cirrhosis. Diet in disease of the endocrine: Pancreas-Diabetes mellitus-classification, symptoms, diagnosis, Dietary care and Nutritional,	12

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management of diabetes Mellitus, Insulin therapy, Oral Hypoglycemic agents, Juvenile Diabetes.

Diseases of the Cardio Vascular system: Atherosclerosis Etiology and Risk Factor, Hypertension-Etiology, prevalence Nutritional management and prevention, Renal diseases-Nephritis, Nephrosis - Causes, Symptoms and Dietary management

Keywords: : Health and Nutrition, Concept of nutritionally adequate diet and meal planning, Steps involved in planning a diet, Nutrition through the life cycle, Principles of diet therapy, Etiology, Pancreas, Cardio-Vascular system.

Part C: Learning Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

1. आहार एवं पोषण डॉ वृन्दा सिंह, Hindi edition, Panchsheel Publishers.
2. Dietetics: B. Shrilaxmi ,8th edition, New Age International publishers.
3. Human Nutrition and Dietetics: Davidson and Passmore, 8th edition, Livingstone Publishers.
4. Normal and Therapeutic Nutrition: Robinson, 17th edition, Mac Millan publishing Company.
5. Food, Nutrition and Diet Therapy: Krause, 11th edition, Saunders Publishers.
6. Nutrition and Diet Therapy: Su.R.Williams, 4th edition, C.V.Mosby Co. Publishers.
7. Modern Nutrition in Health and Disease: Shils, M.E. Olson, 8th edition, Lea and Febiger Waverly Company Publishers.

E:learning Resources:

1. Balance Diet:
 1. https://www.google.com/search?q=balanced+diet&rlz=1C1JJTC_enIN950IN950&aq=chrome
 2. <https://iamherbalifenutrition.com/nutrition:facts/balanced:diet:daily:nutrition/>
2. Principles of diet therapy:
 1. https://www.google.com/search?q=principles+of+diet+therapy&rlz=1C1JJTC_enIN950IN950&aq=chrome.2.69i57j0i1019.15376j0j15&sourceid=chrome&ie=UTF:8
 2. <https://www.youtube.com/watch?v=OVM97v:Ysmw>
 3. https://onlinecourses.swayam2.ac.in/cec21_hs09/preview
3. Food Pyramid:
 1. https://www.google.com/search?q=food+pyramid&rlz=1C1JJTC_enIN950IN950&aq=chrome.3.69i57j35i39j0i67j0i433i51
 2. https://www.youtube.com/watch?v=ZajKRG_asfs
4. Diet for cirrhosis:
 1. https://www.google.com/search?q=diet+of+cirrhosis&rlz=1C1JJTC_enIN950IN950&aq=chrome.1
 2. <https://www.medtalks.in/articles/nutrition:and:progNOsis:of:liver:diseases>
5. Diseases of the Cardio Vascular system:
 1. https://www.google.com/search?q=disease+and+diet+of+cardiovascular+system&rlz=1C1JJTC_
 2. <https://www.betterhealth.vic.gov.au/health/conditionsandtreatments/heart:disease:and:food>

Part D: Assessment and Evaluation

Suggested Continuous Evaluation Methods::

Maximum Marks: 75

Continuous Comprehensive Evaluation(CCE): 15

University Exam (UE): 60

Internal Assessment :

Continuous Comprehensive
Evaluation (CCE)

Class Test
Assignment/Presentation

Two Test each of 15
Assignment Marks: 15
(Mean of Two Tests + Assignment
Divided by 2)

Review

	17 Visit to Dietetics Dept of Hospitals. 18 Workshops / Project: Menu planning on Normal and therapeutic modification of Diet
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Part C: Learning Resources

Text Books, Reference Books, Other Resources

Suggested Readings:

1. आहार एवं पोषण - डॉ वृन्दा सिंह, Hindi edition, Panchsheel Publishers.
2. Dietetics: B. Shrilaxmi ,8th edition, new age international publishers.
3. Human Nutrition and Dietetics: Passmore,8th edition, Livingstone Publishers.
4. Normal and Therapeutic Nutrition: Robinson,17th edition, MacMillan publishing Company,
5. Food, Nutrition and Diet Therapy: Krause, 11th edition, Saunders Publishers.
6. Nutrition and Diet Therapy: Su. R. Williams,4th edition, C.V.Mosby Co. Publishers.
7. Modern Nutrition in Health and Disease: Shils, M.E. Olson,8th edition, Lea and Febiger Waverly Company Publishers.

E:learning Resources:

1. Diet for Adult:
https://www.google.com/search?q=diet+for+adults&rlz=1C1JJTC_enIN950IN950&oq=diet+for+adult&aq=chrome.
2. Diet for pregnancy:
https://www.google.com/search?q=diet+for+pregnant+women&rlz=1C1JJTC_enIN950IN950&xsrf=ALiCzsbc_
3. Diet for Atherosclerosis:
https://www.google.com/search?q=diet+for+atherosclerosis&rlz=1C1JJTC_enIN950IN950&xsrf=ALiCzsZ6XyYHi7Q:
4. Diet for diabetes mellitus:
https://www.google.com/search?q=diet+for+diabetes+mellitus&rlz=1C1JJTC_enIN950IN950&xsrf=ALiCzsZFJ52m3efDHRtUHUm0TTnrmp7Ctg

Part D: Assessment and Evaluation

Suggested Continuous Evaluation Methods::

Maximum Marks: 25

Continuous Comprehensive Evaluation(CCE): Not Applicable

University Exam (UE): 25

Internal Assessment : Continuous Comprehensive Evaluation (CCE)

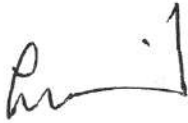
Class Test
Assignment/Presentation

Not Applicable

आज दिनांक 31.05.2022 को केन्द्रीय अध्ययन मण्डल की मीटिंग गृहविज्ञान विभाग में आयोजित की गई जिसमें निम्नलिखित सदस्य उपस्थित हुए तथा विभिन्न गृहविज्ञान से संबंधित विषयों के पाठ्यक्रम संशोधित एवं अनुमोदित किये गये-

डॉ. सीमा मिश्रा, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- अध्यक्ष,
डॉ. बबीता दुबे	- प्रतिनिधि, उच्च शिक्षा विभाग, नया रायपुर
डॉ. भारती सेठी, डॉ. खूबचंद बघेल शासकीय स्नातकोत्तर महाविद्यालय, गिलाई-3, दुर्ग	- सदस्य
डॉ. संध्या वर्मा, शासकीय कला एवं वाणिज्य महावि. देवेन्द्र नगर, रायपुर	- सदस्य
डॉ. संध्या मदन मोहन, प्राचार्य, गिलाई महिला महाविद्यालय, गिलाई, एवं अध्यक्ष, अध्ययन मण्डल, हेमचंद यादव विश्वविद्यालय	- सदस्य
डॉ. रश्मि मिंज, दूधाधारी महिला महावि. रायपुर	- सदस्य
डॉ. अल्का दुग्गल, वामन राव पाटनकर महिला महावि, दुर्ग	- सदस्य
डॉ. निशा श्रीवास्तव, होलीकास महिला महावि. अंबिकापुर	- सदस्य
डॉ. शिप्रा बनर्जी, दूधाधारी महिला महावि. रायपुर	- सदस्य
श्रीमती ममता आर. देव, शासकीय कमलादेवी राठी महिला स्नातको. महावि. राजनांदगांव छ.ग.	- सदस्य
सुश्री सुषमा घई, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- सदस्य
डॉ. दीपाली राव, शासकीय घनश्याम सिंह गुप्त स्नातको. महावि, बालोद	- सदस्य
डॉ. अर्चना दीक्षित, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- सदस्य
डॉ. शोभा महिस्वर, शासकीय माता शबरी महावि. बिलासपुर	- सदस्य

डॉ. वर्षा डोडिया, विषय विशेषज्ञ तथा शेष अन्य सदस्य अग्न लाइन
उपस्थित रहे,



Part A: Introduction			
Program: Diploma Course		Class: B.Sc. Home Science II Year	Year: 2022 Session: 2022:2023
1	Course Code	HSC-8T	
2	Course Title	Textile And Fiber Science	
3	Course Type	Theory	
4	Pre-requisite (if any)	NO	
5	Course Learning Outcomes (CLO)	<p>At the end of this course, the students will be enable to:</p> <ul style="list-style-type: none"> • To understand basic Knowledge of elements of Arts in Textile science. • To understand various type of dyeing and printing technology. • To understand technique for cloth disinfection.. • To understand basic Knowledge of cleaning and dry cleaning. • To understand various finishes. • To understand basic chemistry of soap and detergents. 	
6	Credit Value	Theory: 4	
7	Total Marks	Max. Marks: 60+15	Min Passing Marks : 25

Part B:Content of the Course		
Total Periods: 60		
Unit	Topics	No. of Periods
I	Introduction to Elements of arts: Principles of design, Colour theories and colour schemes, Pattern - different type of pattern.	12
II	Principles of laundry and its methods: Cleaning materials and Detergents: Soap and detergent, Other cleaning agents, Water: Hardness of water, methods of removal of hardness, Dry cleaning.	12
III	Bleach: types and uses, other reagents used in laundry. Starch: types and uses. Blue: types and uses. Stain removal: classification and technique of stain removal.	12
IV	Disinfection of clothes: Care and Storage of fabrics, Selection of fabric for dress according to age, climate, occupation, occasion, Fashion, personality and figure, Wardrobe planning.	12
V	Equipment and supplies used in clothing construction: Tailoring, General Principles of clothing construction, Methods of taking body measurements, Drafting and Draping, Pattern Making, General instructions for pattern making, Methods, Types and layout.	12
Keywords: : Elements of arts, design, Pattern, laundry and its methods, Bleach, Starch, Blue, Stain removal, Care and Storage of fabrics, Equipment and supplies used in clothing Construction.		

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Part C: Learning Resources

Text Books, Reference Books, Other Resources

Suggested Readings:

1. वस्त्र विज्ञान एवं परिधान का परिचय: डॉ मंजु पाटनी, 3rd edition, star publication.
2. वस्त्र विज्ञान - वृन्दा सिंह, Hindi edition, Panchsheel Publication.
3. वस्त्र विज्ञान एवं परिधान- डॉ प्रमिला , Hindi edition, Bihar Hindi Garth publication.
4. वस्त्र विज्ञान के मूल सिद्धान्त- डॉ जी पी शेरी, Hindi edition, Shri ViNOD Pustak Mandir Publication.
5. The complete Book of Fashion Illustration: Tate, S.L, 2nd edition, New York, Harper and Row Publication.
6. Fashion drawing: basic principles: Allen, Anne , 2nd edition, Batsford Ltd Publication.
7. Fashion Illustration: Barnes Colin, 3rd edition, Little Brown Publication.
8. Fundamentals of Textiles and their care: Sushila Dhantiyagi, 5th edition, Orient Blackswan Private publication.

E-learning Resources:

1. Principle of Design:
https://www.google.com/search?q=principles+of+designandrlz=1C1JJTC_enIN950IN950andooq=principle+of+desandaqs
2. Method of remove hardness of water:
https://www.google.com/search?q=method+of+remove+hardness+of+waterandrlz=1C1JJTC_
3. Bleach:
https://www.google.com/search?q=types+of+bleaching+in+textileandrlz=1C1JJTC_
4. Stain Remover:
https://www.google.com/search?q=Stain+removingandrlz=1C1JJTC_enIN950IN950andooq=Stain+removingandaqs=chrome
5. Details of Indian Fashion
<https://www.udemy.com/topic/fashion-design/>
6. Concepts of Textile and Fashion
<https://www.coursera.org/courses?query=fashion%20design>
7. Cloth designing related courses
<https://www.onlinestudies.com/Courses/Fashion-Design/>

Part D: Assessment and Evaluation

Suggested Continuous Evaluation Methods::

Maximum Marks: 75

Continuous Comprehensive Evaluation(CCE): 15

University Exam (UE): 60

Internal Assessment:

Continuous Comprehensive Evaluation (CCE)

Class Test
Assignment/Presentation

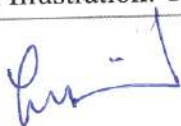
Two Test each of 15
Assignment Marks: 15
(Mean of Two Tests + Assignment
Divided by 2)

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Part A: Introduction			
Program: Diploma Course	Class: B.Sc. Home Science II Year	Year: 2022	Session: 2022:2023
1	Course Code	HSC-8P	
2	Course Title	LAB8: Textile And Fiber Science	
3	Course Type	Practical	
4	Pre-requisite (if any)	Theoretical Knowledge of physiochemical properties of textile fibers and dyeing, printing technology.	
5	Course Learning Outcomes (CLO)	<p>At the end of this course, the students will be enable to:</p> <ul style="list-style-type: none"> • To understand basic Knowledge pattern making techniques. • To understand various type of dry cleaning. • To understand measurement technique for stain removal. • To understand basic Knowledge of cleaning and dry cleaning • To understand cloth disinfection. • To understand basic chemistry of soap and detergents. 	
6	Credit Value	Practical: 2	
7	Total Marks	Max. Marks: 25	Min Passing Marks : 09

Part B: Content of the Course	
Total No. of Periods : 15	
Tentative Practical List	<p>Note: This is tentative list; the teachers concern can add more Experiment as per requirement</p> <ol style="list-style-type: none"> 1. Prepare design with different colour schemes. 2. Prepare different patterns: geometrical, decorative. 3. Educational visit to dry cleaning unit. 4. Educational visit to Boutique and famous tailoring shop. 5. Stain removal. 6. Washing of different type of cloths by different methods. 7. Soap and detergent making-hot and cold method. 8. Application of various finishes: Calendaring, starching, blueing. 9. 07 day workshop on tailoring. 10. Educational visit to soap manufacturing unit. 11. 07 days workshop on soap making/ Printing TechNOlogy.

Part C: Learning Resources	
Text Books. Reference Books, Other Resources	
Suggested Readings:	
<ol style="list-style-type: none"> 1. वस्त्र विज्ञान एवं परिधान का परिचय: डॉ मंजु पाटनी, 3rd edition, star publication. 2. वस्त्र विज्ञान and वृन्दा सिंह, Hindi edition, Panchsheel Publication. 3. वस्त्र विज्ञान एवं परिधान-डॉ. प्रमिला, Hindi edition, Bihar Hindi Garth publication. 4. वस्त्र विज्ञान के मूल सिद्धान्त-डॉ जी पी शेरी, Hindi edition, Shri Vinod Pustak Mandir Publication. 5. The complete Book of Fashion Illustration: Tate, S.L, 2nd edition, New York, Harper and Row 	



Publication.

6. Fashion drawing: basic principles: Allen, Anne , 2nd edition, Batsford Ltd Publication.
7. Fashion Illustration: Barnes Colin, 3rd edition, Little Brown Publication.
8. Fundamentals of Textiles and their care: Sushila Dhantyagi, 5th edition, Orient Blackswan Private publication.

E-learning Resources:

1. Preparing of different Patterns
<https://www.google.com/search?q=preparing+for+different+patterns+in+clothandrlz=1C1JJTC>
2. Preparing Color Schemes
<https://www.canva.com/learn/100:color:combinations/>
3. Details of Indian Fashion
<https://www.udemy.com/topic/fashion-design/>
4. Concepts of Textile and Fashion
<https://www.coursera.org/courses?query=fashion%20design>
5. Cloth designing related courses
<https://www.onlinestudies.com/Courses/Fashion-Design/>

Part D: Assessment and Evaluation

Suggested Continuous Evaluation Methods::

Maximum Marks: 25

Continuous Comprehensive Evaluation(CCE): Not Applicable

University Exam (UE): 25

Internal Assessment:

Continuous Comprehensive Evaluation (CCE)

Class Test
Assignment/Presentation

Not Applicable

आज दिनांक 31.05.2022 को केन्द्रीय अध्ययन मण्डल की मीटिंग गृहविज्ञान विभाग में आयोजित की गई जिसमें निम्नलिखित सदस्य उपस्थित हुए तथा विभिन्न गृहविज्ञान से संबंधित विषयों के पाठ्यक्रम संशोधित एवं अनुमोदित किये गये-

डॉ. सीमा मिश्रा, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- अध्यक्ष,
डॉ. बबीता दुबे	- प्रतिनिधि, उच्च शिक्षा विभाग, नया रायपुर
डॉ. भारती सेठी, डॉ. खूबचंद बघेल शासकीय स्नातकोत्तर महाविद्यालय, मिलाई-3, दुर्ग	- सदस्य
डॉ. संध्या वर्मा, शासकीय कला एवं वाणिज्य महावि. देवेन्द्र नगर, रायपुर	- सदस्य
डॉ. संध्या मदन मोहन, प्राचार्य, मिलाई महिला महाविद्यालय, मिलाई, एवं अध्यक्ष, अध्ययन मण्डल, हेमचंद यादव विश्वविद्यालय	- सदस्य
डॉ. रश्मि मिंज, दूधाधारी महिला महावि. रायपुर	- सदस्य
डॉ. अल्का दुग्गल, वामन राव पाटनकर महिला महावि, दुर्ग	- सदस्य
डॉ. निशा श्रीवारतव, होलीकास महिला महावि. अर्बिकापुर	- सदस्य
डॉ. शिप्रा बनर्जी, दूधाधारी महिला महावि. रायपुर	- सदस्य
श्रीमती ममता आर. देव, शासकीय कमलादेवी राठी महिला स्नातको. महावि. राजनांदगांव छ.ग.	- सदस्य
सुश्री सुषमा घई, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- सदस्य
डॉ. दीपाली राव, शासकीय घनश्याम सिंह गुप्त स्नातको. महावि, बालोद	- सदस्य
डॉ. अर्चना दीक्षित, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- सदस्य
डॉ. शोभा महिस्वर, शासकीय माता शबरी महावि. बिलासपुर	- सदस्य

डॉ. वर्षा डोडिया, विषय विशेषज्ञ तथा शेष अन्य सदस्य ऑन लाइन उपस्थित रहे.



Part A: Introduction			
Program: Diploma Course		Class: B.Sc. Home Science II Year	Year: 2022 Session:2022:2023
1	Course Code	HSC-9T	
2	Course Title	Human Physiology and Community Nutrition	
3	Course Type	Theory	
4	Pre-requisite (if any)	NO	
5	Course Learning Outcomes (CLO)	<p>At the end of this course, the students will be enable to:</p> <ul style="list-style-type: none"> • To understand Basic Knowledge of Human anatomy. • To understand physiology of various system in human body. • To understand Basic concept of community nutrition. • To understand various nutrition deficiency diseases prevalent in Indian community. • To understand various prophylaxis programs run by government. 	
6	Credit Value	Theory: 4	
7	Total Marks	Max. Marks: 60+15	Min Passing Marks : 25

Part B: Content of the Course		
Total Periods: 60		
Unit	Topics	NO. of Periods
I	An introduction of Physiology and Anatomy: Cell –Structure and functions of human cell, Tissues –Classification and structure, Cardio vascular System– Blood –Composition and Functions, Heart–Structure and Functions , Vessels–Structure and Functions of Artery, Veins and Capillaries.	12
II	Gastro intestinal System: Structure and Functions of various organs of the gastro intestinal tract, Digestion and absorption of food. Nervous System: Elementary Anatomy of Nervous System, Functions of different part of the brain and spinal cord.	12
III	Excretory System: Structure and functions of kidney, bladder, formation of urine, Respiratory System: Structure of Lungs, Mechanism of respiration and its regulation, Transportation of Gases	12
IV	Musculo-Skeletal System: Types of Muscles and its functions, Skeletal System–Types of Bones.	12

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V	<p>Concept and Scope of Community Nutrition: Nutritional problems of the community and implications for public health .Common Problems in India – Causes (Nutritional and Non Nutritional Problems) Incidence of Nutritional problems, sign, symptoms and Treatment.</p> <p>Protein-Energy Malnutrition (PEM), Prophylaxes - Program to Combat Nutritional Problems in India.</p>	12
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Keywords:: An introduction of Physiology and Anatomy, Gastro intestinal System, Excretory System, Musculo- Skeletal System, Concept and Scope of Community Nutrition.

Part C: Learning Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

1. Concise Medical physiology: Chaudhuri, 1st edition, New Central Book Agency Publication.
2. Anatomy and physiology for nurses: Evilyn pears, 16th edition, Jaypee Brothers Publication.
3. Physiology: Sembulingam, 8th edition, Jaypee Brothers Publication.
4. Anatomy, Physiology and Hygiene- Dr Sandhya Verma, Vinod Pustak Mandie, Agra, India.
5. Physiology – J.P. Agrawal, 2nd edition, Jaypee Brothers Publication.
6. Human Physiology: C.C. Chatterjee, 13th edition, CBS Publication.
7. Text book of Medical Physiology: Guyton, A.C. Hall, 2nd edition, Elsevier India Publication.
8. Fundamental of Medical Physiology: Harminder Singh, 2nd edition, Elsevier Publication.

E- learning Resources:

1. Cell:
https://www.google.com/search?q=cellandrlz=1C1JJTC_enIN950IN950anddq=cellandaqs=chrome..
2. Nervous System:
https://www.google.com/search?q=nervous+systemandrlz=1C1JJTC_enIN950IN950anddq=Nerandaqs=chrome.
3. Excretory System:
https://www.google.com/search?q=excretory+systemandrlz=1C1JJTC_enIN950IN950anddq=excaandaqs=chrome

Part D: Assessment and Evaluation

Suggested Continuous Evaluation Methods::

Maximum Marks: 75

Continuous Comprehensive Evaluation(CCE): 15

University Exam (UE): 60

Internal Assessment:

Continuous Comprehensive Evaluation (CCE)

Class Test
Assignment/Presentation

Two Test each of 15
Assignment Marks: 15
(Mean of Two Tests + Assignment
Divided by 2)

Part A: Introduction			
Program: Diploma Course		Class: B.Sc. Home Science II Year	Year: 2022 Session: 2022:2023
1	Course Code	HSC-9P	
2	Course Title	LAB9: Human Physiology and Community Nutrition	
3	Course Type	Practical	
4	Pre-requisite (if any)	Theoretical Knowledge of Human Physiology and anatomy.	
5	Course Learning Outcomes (CLO)	<p>At the end of this course, the students will be able to:</p> <ul style="list-style-type: none"> • To understand Basic Knowledge of Human anatomy. • To understand physiology of regulation of Blood Pressure, blood group. • To understand Basic concept of various types of human tissues. • To understand various nutrition deficiency diseases prevalent in Indian community. • To understand various adulterants. 	
6	Credit Value	Practical: 2	
7	Total Marks	Max. Marks: 25	Min Passing Marks : 09

Part B: Content of the Course	
Total NO. of Periods : 15	
Tentative Practical List	<p>Note: This is tentative list; the teachers concern can add more Experiment as per requirement.</p> <ol style="list-style-type: none"> 1. Recording pulse rate. 2. Measurement of Blood Pressure. 3. Identification of Blood Group and Rh factors. 4. Identification of Clotting, Bleeding time . 5. Preparation of temperature chart. 6. Study of Histological slides of different organs. 7. Visit to one Anganwadi centre and record the activities conducted by Anganwadi. 8. Testing of adulterants in common foods (any five). 9. Project-Making report of mid day meal program running at nearby school.

Part C: Learning Resources	
Text Books, Reference Books, Other Resources	
Suggested Readings:	
<ol style="list-style-type: none"> 1. Concise Medical physiology: Chaudhuri, 1st edition, New Central Book Agency Publication. 2. Anatomy and physiology for nurses: Evilyn pears, 16th edition, Jaypee Brothers Publication. 3. Physiology: Sembulingam, 8th edition, Jaypee Brothers Publication. 4. Physiology – J.P. Agrawal, 2nd edition, Jaypee Brothers Publication. 5. Human Physiology: C.C. Chatterjee, 13th edition, CBS Publication. 	

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6. Text book of Medical Physiology: Guyton, A.C. Hall, 2nd edition, Elsevier India Publication.

7. Fundamental of Medical Physiology: Harminder Singh, 2nd edition, Elsevier Publication.

E- learning Resources:

- preparation of temperature chart:
https://www.google.com/search?q=peparation+of+tempertaure+chartandrlz=1C1JJTC_enIN950IN950and
- Recording of Pulse Rate:
https://www.google.com/search?q=recording+of+pulse+rateandrlz=1C1JJTC_enIN950IN950anddsxsrfe
- Measurement of Blood pressure:
https://www.google.com/search?q=measurement+of+blood+pressureandrlz=1C1JJTC_enIN

Part D: Assessment and Evaluation

Suggested Continuous Evaluation Methods::

Maximum Marks: 25

Continuous Comprehensive Evaluation(CCE): Not Applicable

University Exam (UE): 25

Internal Assessment: Continuous Comprehensive Evaluation (CCE)	Class Test Assignment/Presentation	Not Applicable
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आज दिनांक 31.05.2022 को केन्द्रीय अध्ययन मण्डल की मीटिंग गृहविज्ञान विभाग में आयोजित की गई जिसमें निम्नलिखित सदस्य उपस्थित हुए तथा विभिन्न गृहविज्ञान से संबंधित विषयों के पाठ्यक्रम संशोधित एवं अनुमोदित किये गये-

डॉ. सीमा मिश्रा, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- अध्यक्ष,
डॉ. बबीता दुबे	- प्रतिनिधि, उच्च शिक्षा विभाग, नया रायपुर
डॉ. भारती सेठी, डॉ. खूबचंद बघेल शासकीय स्नातकोत्तर महाविद्यालय, मिललाई-3, दुर्ग	- सदस्य
डॉ. संध्या वर्मा, शासकीय कला एवं वाणिज्य महावि. देवेन्द्र नगर, रायपुर	- सदस्य
डॉ. संध्या मदन मोहन, प्राचार्य, मिललाई महिला महाविद्यालय, मिललाई, एवं अध्यक्ष, अध्ययन मण्डल, हेमचंद यादव विश्वविद्यालय	- सदस्य
डॉ. रश्मि मिंज, दूधधारी महिला महावि. रायपुर	- सदस्य
डॉ. अत्का दुग्गल, वामन राव पाटनकर महिला महावि, दुर्ग	- सदस्य
डॉ. निशा श्रीवास्तव, होलीकास महिला महावि. अर्बिकापुर	- सदस्य
डॉ. शिप्रा बनर्जी, दूधधारी महिला महावि. रायपुर	- सदस्य
श्रीमती ममता आर. देव, शासकीय कमलादेवी राठी महिला स्नातको. महावि. राजनांदगांव छ.ग.	- सदस्य
सुश्री सुषमा घई, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- सदस्य
डॉ. दीपाली राव, शासकीय घनश्याम सिंह गुप्त स्नातको. महावि, बालोद	- सदस्य
डॉ. अर्चना दीक्षित, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- सदस्य
डॉ. शोभा महिस्वर, शासकीय माता शबरी महावि. बिलासपुर	- सदस्य

डॉ. वर्षा डोडिया, विषय विशेषज्ञ तथा शेष अन्य सदस्य अंतर्गत लाइन
उपस्थित रहे.



Part A: Introduction

Program: Diploma Course		Class: B.Sc. Home Science II Year	Year: 2022	Session: 2022:2023
1	Course Code	HSC-10T		
2	Course Title	Communication Process		
3	Course Type	Theory		
4	Pre-requisite (if any)	NO		
5	Course Learning Outcomes (CLO)	At the end of this course, the students will be enable to: <ul style="list-style-type: none"> • To understand Concept of developing communication skills. • To understand the process of communication. • To understand soft skill development for proper communication. • To understand E Learning for communication. • To understand various method to reach individual and mass. 		
6	Credit Value	Theory: 4		
7	Total Marks	Max. Marks: 60	Min Passing Marks: 25	Content of the Course

Total Periods: 60

Unit	Topics	NO. of Periods
I	Concept of development communication: Meaning and importance of communication in development, The purpose of Communication.	12
II	Communication Process: One-way and two-way or interactive communication, Gaps in communication or distortions in transmission of message and their Causes, Importance of two-way communication.	12
III	Methods of communication in Development: Methods to reach individual, Personal conference, Interviews, House visits, Exhibits, Group discussions, Role Plays, Demonstrations, Workshop, Camps, Public meetings, Radio announcements/programs. Posters, Videos, films Documentary, Television programs, Folk media, Songs, Stories. Street theatre, Puppet play Print media, Posters Pamphlets, leaflets, Print Media, Audio/Visuals, Audio Visual Media, Audio tapes, radio broadcasts, Films documentary, feature.	12
IV	Methods of communication: Soft skill Development and its effect on communication skills, Emotional Intelligence, Negotiation, Non verbal communication, Resource fullness, Conflict Resolution, Adaptability, Work Ethic.	12
V	Methods of Communication: E Learning, Internet, Graphic Design, Cyber Security. Data Analysis, Digital and Social Media, Basic Programming and web Development.	12

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Keywords:: development communication, Communication Process, Methods of communication in Development, Methods of communication : soft skill Development and its effect on communication skills, Methods of Communication – “E:Learning”.

Part C: Learning Resources

Text Books, Reference Books, Other Resources

Suggested Readings:

1. Extension Education: Vrinda Singh, 2nd edition, Panchsheel Publication
2. Education and communication for development: O P Dhama, 2rd edition, oxford publication.
3. Extension Education and Communication: V K Dubey, 1st edition, New age International Publication.
4. Extension Communication and Management: G L Ray, 3rd edition, Kalyan Publication.
5. A brief book on Extension Education: Shruti Madan Singh, 2nd edition, New Vishal Publication.
6. SWAYAM portal based course Information and Communication technology: Dr. Aprajita Bhatt.
7. SWAYAM portal based course Home science: Extension and Communication management level:1 course NO.43.

E-Learning Sources:

1. Method of Communication Development:
<https://www.google.com/search?q=methods+of+communication+process&rlz=1C1JJTC>
2. Communication Process:
https://www.google.com/search?q=communication+process&rlz=1C1JJTC_enIN950IN950anddq=communication+proc&daqs=c

Part D: Assessment and Evaluation

Suggested Continuous Evaluation Methods::

Maximum Marks: 75

Continuous Comprehensive Evaluation (CCE): 15

University Exam (UE): 60

Internal Assessment : Continuous Comprehensive Evaluation (CCE)

Class Test
Assignment/Presentation

Two Test each of 15
Assignment Marks: 15
(Mean of Two Tests + Assignment
Divided by 2)

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Part A: Introduction			
Program: Diploma Course		Class: B.Sc. Home Science II Year	Year: 2022 Session: 2022:2023
1	Course Code	HSC-10P	
2	Course Title	LAB10: Communication Process	
3	Course Type	Practical	
4	Pre-requisite (if any)	Theoretical Knowledge of communication techniques.	
5	Course Learning Outcomes (CLO)	At the end of this course, the students will be enable to: <ul style="list-style-type: none"> • To understand Concept of developing communication skills. • To understand the process of communication. • To understand soft skill development for proper communication. • To understand e-Learning for communication. • To identify community problems. • To understand various method to reach individual and mass. 	
6	Credit Value	Practical: 2	
7	Total Marks	Max. Marks: 25	Min Passing Marks : 09

Part B: Content of the Course	
Total NO. of Periods : 15	
Tentative Practical List	Note: This is tentative list; the teachers concern can add more Experiment as per Requirement <ol style="list-style-type: none"> 1. Organizing group discussion. 2. Organizing group demonstration. 3. Preparation and Presentation of Audio visual aids, i.e. Posters, Charts, Cartoons, Models Puppets. 4. Posters, Charts, Cartoons, Models Puppets. 5. Problem/need identification of a community. 6. Preparation of Drama based on Social Development. 7. Project-Power Point Presentation individually on any current topic. 8. Website/Web Page Designing. 9. Marketing Survey. 10. Visit to Local Exhibition.

Part C: Learning Resources	
Text Books. Reference Books, Other Resources	
Suggested Readings:	
<ol style="list-style-type: none"> 1. Extension Education: Vrinda Singh, 2nd edition, Panchsheel Publication. 2. Education and communication for development: O P Dhama, 2rd edition, oxford publication. 3. Extension Education and Communication: V K Dubey, 1st edition, New age International Publication. 4. Extension Communication and Management: G L Ray, 3rd edition, Kalyan Publication. 5. A brief book on Extension Education: Shruti Madan Singh, 2nd edition, New Vishal Publication. 	

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6. SWAYAM portal based course Information and Communication technology: Dr. Aprajita Bhatt.
7. SWAYAM portal based course Home science: Extension and Communication management level:1 course NO.43.

E-Learning Sources:

1. Presentation of Audio: Visual Aid:
https://www.google.com/search?q=presentation+on+audio+visual+aids&rlz=1C1JJTC_enIN950IN950&ooq=Presentation+of+Audio+Viandaqs=chrome
2. Web Page/ Web Designing:
https://www.google.com/search?q=web+designing&rlz=1C1JJTC_enIN950IN950&andsxrf=
3. Marketing Survey:
https://www.google.com/search?q=marketing+survey&rlz=1C1JJTC_enIN950IN950&andsxrf=

Part D: Assessment and Evaluation

Suggested Continuous Evaluation Methods::

Maximum Marks: 25

Continuous Comprehensive Evaluation(CCE): Not Applicable

University Exam (UE): 25

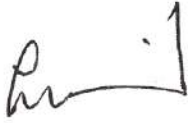
Internal Assessment : Continuous Comprehensive Evaluation (CCE)	Class Test Assignment/Presentation	Not Applicable
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आज दिनांक 31.05.2022 को केन्द्रीय अध्ययन मण्डल की मीटिंग गृहविज्ञान विभाग में आयोजित की गई जिसमें निम्नलिखित सदस्य उपस्थित हुए तथा विभिन्न गृहविज्ञान से संबंधित विषयों के पाठ्यक्रम संशोधित एवं अनुमोदित किये गये-

डॉ. सीमा मिश्रा, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- अध्यक्ष,
डॉ. बबीता दुबे	- प्रतिनिधि, उच्च शिक्षा विभाग, नया रायपुर
डॉ. भारती सेठी, डॉ. खूबचंद बघेल शासकीय स्नातकोत्तर महाविद्यालय, भिलाई-3, दुर्ग	- सदस्य
डॉ. संध्या वर्मा, शासकीय कला एवं वाणिज्य महावि. देवेन्द्र नगर, रायपुर	- सदस्य
डॉ. संध्या मदन मोहन, प्राचार्य, भिलाई महिला महाविद्यालय, भिलाई, एवं अध्यक्ष, अध्ययन मण्डल, हेमचंद्र यादव विश्वविद्यालय	- सदस्य
डॉ. रश्मि मिंज, दूधाधारी महिला महावि. रायपुर	- सदस्य
डॉ. अल्का दुग्गल, वामन राय पाटनकर महिला महावि, दुर्ग	- सदस्य
डॉ. निशा श्रीवास्तव, होलीकास महिला महावि. अंबिकापुर	- सदस्य
डॉ. शिप्रा बनर्जी, दूधाधारी महिला महावि. रायपुर	- सदस्य
श्रीमती ममता आर. देव, शासकीय कमलादेवी राठी महिला स्नातको. महावि. राजनांदगांव छ.ग.	- सदस्य
सुश्री सुषमा घई, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- सदस्य
डॉ. दीपाली राव, शासकीय घनश्याम सिंह गुप्त स्नातको. महावि, बालोद	- सदस्य
डॉ. अर्चना दीक्षित, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- सदस्य
डॉ. शोभा महिस्वर, शासकीय माता शबरी महावि. बिलासपुर	- सदस्य

डॉ. वर्षा डोडिया, विषय विशेषज्ञ तथा शेष अन्य सदस्य उक्त लाइन
उपस्थित रहे,



Part A: Introduction			
Program: Diploma Course		Class: B.Sc. Home Science II Year	Year: 2022 Session: 2022:2023
1	Course Code	HSC-11T	
2	Course Title	Life Span Development	
3	Course Type	Theory	
4	Pre-requisite (if any)	NO	
5	Course Learning Outcomes (CLO)	<p>At the end of this course, the students will be enable to:</p> <ul style="list-style-type: none"> • To understand Basic Knowledge of Human Development. • To understand various aspects of development in Life Span. • To understand Basic concept Creativity in children. • To understand how to impart creativity in children. • To understand various problems of life span and coping up strategies. 	
6	Credit Value	Theory: 4	
7	Total Marks	Max. Marks: 60+15	Min Passing Marks : 25

Part B: Content of the Course		
Total Periods: 60		
Unit	Topics	NO. of Periods
I	<p>Life Span development: and need to study development through the life cycle.</p> <p>Inter-relationship between the aspects of development, Childhood period (2 to 12 years): Definition, Characteristics and Developmental tasks.</p>	12
II	<p>Adolescence (13 to 18years): Definition, Developmental tasks, Identity-Definition, body image, positive and negative outcomes (Role of Confusion, ego-identity), Heightened emotionality: Meaning, causes, expression, characteristics of emotional maturity, conflict with authority, coping up strategies.</p>	12
III	<p>Adulthood (19 to 60 years) and ageing: (Early adulthood 19 to 40 years) Definition and characteristics Development tasks, significance of the period, responsibilities and adjustment: New family, parenthood, independence, financial matters.</p> <p>Menopause-Health issues, Stresses in middle age, coping with stress to family, Preparation for retirement, Late Adulthood and Ageing – Definition, Retirement-effect of retirement on self, family, society, and financial problems faced, Recreational interest of the aged, Issues: Old age homes, loneliness, living in joint family, prolonged illness. (Plan visit to old age homes).</p>	12

Signature

IV	<p>Toddlerhood (Emotional Aspect): Importance and ways of meeting child psychological needs to promote feeling of security, Activities according to developments for various age groups trust and acceptance, 13 to 24 months-Strengthening concept formation, imagination and communication through language promotion of problem solving, environment to explore and develop confidence, 25-36 months: Improvement in body movement and communication skills, social skills concept formation.</p>	12
V	<p>Creativity: Concept of creativity and highlights of the role of creative expressions in over all development of children, Creative expressions, Meaning and definition of creativity expressions, Role of teacher in planning and fostering creative expressions, Creative expressions.</p> <p>Art Activities: Painting and graphics, Painting with brush, drawing with crayons, chalk, rangoli on floor, finger painting.(Some special characteristics of this medium), Teacher's role in conducting activities, Tearing, cutting, pasting and collage, mural, Values ,materials required and Teacher's role in conducting Activities, Printing: Types of printing i.e. block, vegetables, string, leaf, Stencils, spray, crumpled paper, different Textured surfaces.</p>	12
<p>Keywords:: Life Span development and need, Adolescence (13 to 18 years), Adulthood (19 to 60 years), Toddlerhood (Emotional Aspect), Creativity, Painting and graphics, Tearing, cutting, pasting and collage, mural, Printing.</p>		

Part C: Learning Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

1. Human Development: Vrinda Singh, Hindi edition, Panchsheel Prakashan Publication.
2. Textbook of Human Development: K. Sudha Rani, 2nd edition, S Chand and Company Publication.
3. Child Development: Nandita Babu, 8th edition, Pearson Education Publication.
4. Life Span Development: John W. Santrock, 17th edition, Mc Graw hill Publication.
5. Childhood to Adolescence: Seema Sahay, 1st edition, Pearson Education Publication.
6. Child Development: Laura E. Berk, 9th edition, Pearson Education Publication.
7. Human Development: Daine E. Papalia, 9th edition, Mc Graw hill Publication.

E:learning Resources:

1. Adolescence:
https://www.google.com/search?q=adolescenceandrlz=1C1JJTC_enIN950IN950andsxsrf=
2. Toddlerhood:
https://www.google.com/search?q=Toddlerhoodandrlz=1C1JJTC_enIN950IN950andsxsrf=
3. Adulthood:
https://www.google.com/search?q=Adulthoodandrlz=1C1JJTC_enIN950IN950andsxsrf=

Part D: Assessment and Evaluation

Suggested Continuous Evaluation Methods::

Maximum Marks: 75

Continuous Comprehensive Evaluation(CCE): 15

University Exam (UE): 60

Internal Assessment :

Continuous Comprehensive
Evaluation (CCE)

Class Test
Assignment/Presentation

Two Test each of 15
Assignment Marks: 15
(Mean of Two Tests + Assignment
Divided by 2)

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Part A: Introduction			
Program: Diploma Course		Class: B.Sc. Home Science II Year	Year: 2022 Session: 2022:2023
1	Course Code	HSC-11P	
2	Course Title	LAB11: Life Span Development	
3	Course Type	Practical	
4	Pre-requisite (if any)	Theoretical Knowledge of development through life cycle.	
5	Course Learning Outcomes (CLO)	<p>At the end of this course, the students will be enable to:</p> <ul style="list-style-type: none"> • To understand Basic Knowledge of Human Development. • To understand various aspects of development in Life Span. • To understand Basic concept Creativity in children. • To understand Developmental activities in children. • To understand various problems of life span and coping up strategies. 	
6	Credit Value	Practical: 2	
7	Total Marks	Max. Marks: 25	Min Passing Marks : 09

Part B: Content of the Course	
Total NO. of Periods: 15	
Tentative Practical List	<p>Note: This is tentative list; the teachers concern can add more Experiment as per requirement .</p> <ol style="list-style-type: none"> 1. Infancy and Toddlerhood <ol style="list-style-type: none"> 1. A file to be prepared to list activities appropriate for age groups : 0:6 months, 7:12months,13 to 20 months and 25 to 36months. 2. Students be encouraged to observe materials available in the locality, Different types of shops, tailor. 3. Develop play materials suitable for each age group. 4. List activities, which can be used for working with different age groups. <ol style="list-style-type: none"> (a) 0 to 6 months. <ol style="list-style-type: none"> 1. Prepare materials and design activities for seeing, hearing touching and feeling. 2. Sensation and movement for soothing movements and exercises. (b) 7 to 12 months. <ol style="list-style-type: none"> 1. Prepare materials and design activities for touching and feeling sensation and movement, and manipulation. (c) 13 to 14 months. <ol style="list-style-type: none"> 1. Identify activities for gross motor development and prepare play materials available in the locality. 2. Prepare play materials and list activities promote manipulation sensory experiences, concepts and language. 3. Visit to old age homes. 2. Art Activities

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	<ol style="list-style-type: none"> 1. A few suggestions are given under each category as guideline students be encouraged to explore experiment with each media and understand the characteristics of each medium. Samples of each are included in the resource file which each student is expected to maintain along with description of values materials and technique used. 2. Difficulty level of each activity be considered and decide its suitability for different age groups: <ol style="list-style-type: none"> 1. Painting and graphics 2. Prepare a variety of brushes from different types of brooms, cotton, wool, strips of cloth, feather etc 3. Tearing cutting and pasting Workshop: <ol style="list-style-type: none"> 1. 3-5 years Tearing with all fingers, tearing with thumb and two fingers as used in holding pencil, tearing on straight line and curved line. 2. 6-8 years Tearing circular rings starting from one corner of the page till centre of page, Making designs. 3. 3-5 cutting and pasting Cutting and design, pasting, please of paper, cloth, stick sleeves collage, mosaic Printing 4. Printing Workshop: <ol style="list-style-type: none"> 1. Printing with strings, leaf, vegetable blocks, stencil printing, thumb, finger, spray painting. 2. Keeping coins, leaves with veins below paper and gently coloring with crayon.
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Part C: Learning Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

1. Human Development: Vrinda Singh, Hindi edition, Panchsheel Prakashan Publication.
2. Textbook of Human Development: K.Sudha Rani, 2nd edition, S Chand and Company Publication.
3. Child Development: Nandita Babu, 8th edition, Pearson Education Publication.
4. Life Span Development: John W. Santrock, 17th edition, Mc Graw hill Publication.
5. Childhood to Adolescence: Seema Sahay, 1st edition, Pearson Education Publication.
6. Child Development: Laura E. Berk, 9th edition, Pearson Education Publication.
7. Human Development: Daine E. Papalia, 9th edition, Mc Graw hill Publication.

E:learning Resources:

1. Toddlerhood:

https://www.google.com/search?q=Toddlerhoodandrlz=1C1JJTC_enIN950IN950andsxsrf

Part D: Assessment and Evaluation

Suggested Continuous Evaluation Methods::

Maximum Marks: 25

Continuous Comprehensive Evaluation(CCE): Not Applicable

University Exam (UE): 25

Internal Assessment :

Continuous Comprehensive
Evaluation (CCE)

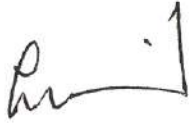
Class Test
Assignment/Presentation

Not Applicable

आज दिनांक 31.05.2022 को केन्द्रीय अध्ययन मण्डल की मीटिंग गृहविज्ञान विभाग में आयोजित की गई जिसमें निम्नलिखित सदस्य उपस्थित हुए तथा विभिन्न गृहविज्ञान से संबंधित विषयों के पाठ्यक्रम संशोधित एवं अनुमोदित किये गये-

डॉ. सीमा मिश्रा, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- अध्यक्ष,
डॉ. बबीता दुबे	- प्रतिनिधि, उच्च शिक्षा विभाग, नया रायपुर
डॉ. भारती सेठी, डॉ. खूबचंद बघेल शासकीय स्नातकोत्तर महाविद्यालय, भिलाई-3, दुर्ग	- सदस्य
डॉ. संध्या वर्मा, शासकीय कला एवं वाणिज्य महावि. देवेन्द्र नगर, रायपुर	- सदस्य
डॉ. संध्या मदन मोहन, प्राचार्य, भिलाई महिला महाविद्यालय, भिलाई,	- सदस्य
एवं अध्यक्ष, अध्ययन मण्डल, हेमचंद यादव विश्वविद्यालय	
डॉ. रश्मि मिंज, दूधाधारी महिला महावि. रायपुर	- सदस्य
डॉ. अल्का दुग्गल, वामन राय पाटनकर महिला महावि, दुर्ग	- सदस्य
डॉ. निशा श्रीवास्तव, होलीकास महिला महावि. अर्बिकापुर	- सदस्य
डॉ. शिप्रा बनर्जी, दूधाधारी महिला महावि. रायपुर	- सदस्य
श्रीमती ममता आर, देव, शासकीय कमलादेवी राठी महिला स्नातको. महावि. राजनांदगांव छ.ग.	- सदस्य
सुश्री सुषमा घई, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- सदस्य
डॉ. दीपाली राव, शासकीय घनश्याम सिंह गुप्त स्नातको. महावि, बालोद	- सदस्य
डॉ. अर्चना दीक्षित, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- सदस्य
डॉ. शोभा महिस्वर, शासकीय माता शबरी महावि. बिलासपुर	- सदस्य

डॉ. वर्षा डोडिया, विषय विशेषज्ञ तथा शेष अन्य सदस्य अगंत लाइन
उपस्थित रहे,



Part A: Introduction			
Program: Diploma Course		Class: B.Sc. Home Science II Year	Year: 2022 Session: 2022:2023
1	Course Code	HSC-12T	
2	Course Title	Consumer Economics	
3	Course Type	Theory	
4	Pre-requisite (if any)	NO	
5	Course Learning Outcomes (CLO)	At the end of this course, the students will be enable to: <ul style="list-style-type: none"> • To understand importance of consumers. • To understand types of income, saving and investment. • To understand market and consumer behavior. • To understand Consumer Protection mechanism in India. • To understand Consumer Decision making. 	
6	Credit Value	Theory: 4	
7	Total Marks	Max. Marks: 60+15	Min Passing Marks : 25

Part B: Content of the Course		
Total Periods: 60		
Unit	Topics	NO. of Periods
I	Definition of consumer: Consumer rights and responsibility, Consumer buying habits convenience goods.	12
II	Personal income: Types of income–real, money, psychic, national income, disposable income, Saving and investment, Sources of investment.	12
III	Consumer in the market: Market-Definition, types of market, functions, channels of distribution, Buying motives – Primary, selective, rational, emotional and for teenagers. Types of Products, Advertisement, Sales, Promotion packing, Consumer Buying Problems, Faculty weights and measure, Pricing, Legal–guarantee and warrantee contracts, installment buying.	12
IV	Consumer Protection services: Organizations, Legislation–import laws for consumer protection, Consumer protective services, Indian Standard Institution, Educational Institution, Consumer Co-operatives, Government Agencies Municipality.	12
V	Consumer Decision making: Factors effecting consumer decision in the market, Consumer aides for decision making.	12
Keywords:: Definition of consumer, Personal income, Consumer in the market, Consumer Protection services, Consumer Decision making.		

Part C: Learning Resources

Text Books, Reference Books, Other Resources

Suggested Readings:

1. Consumer Protection and Business Ethics: Saroj Hiremath, 2nd edition, Nirali Publication.
2. Consumer Economics: Garima Tripathi, 1st edition, Shri ViNod pustak Mandir Publication.
3. Consumer affairs: Khanna S.R, 3rd edition, Universities Press India Publication.
4. Consumer Behaviour: Situn Krushna Sahu, 1st edition, Notion Press publication.
5. Consumer Protection Rights in India: Sushil Kumar Sen, 3rd edition, Bookwell publication.
6. Trade Practices and Consumerism: Sherlekar, 9th edition, Himalaya Publishing House.
7. The Economics of Consumption: Cochrane, 11th edition, Mc Graw hill Publication.

E:learning Resources:

1. Consumer in the market:
https://www.google.com/search?q=Consumer+in+the+market&rlz=1C1JJTC_
2. Definition of consumer:
https://www.google.com/search?q=Definition+of+consumer&rlz=1C1JJTC_enIN950IN950andsxsrfr=
3. Consumer Protection services:
https://www.google.com/search?q=Consumer+Protection+services&rlz=1C1JJTC_

Part D: Assessment and Evaluation

Suggested Continuous Evaluation Methods::

Maximum Marks: 75

Continuous Comprehensive Evaluation(CCE): 15

University Exam (UE): 60

Internal Assessment:

Continuous Comprehensive Evaluation (CCE)

Class Test
Assignment/Presentation

Two Test each of 15
Assignment Marks: 15
(Mean of Two Tests + Assignment
Divided by 2)

Am-1

Part A: Introduction			
Program: Diploma Course		Class: B.Sc. Home Science	Year: 2022 Session: 2022:2023
1	Course Code	HSC-12P	
2	Course Title	LAB12: Consumer Economics	
3	Course Type	Practical	
4	Pre-requisite (if any)	Theoretical Knowledge of consumer behavior and protection	
5	Course Learning Outcomes (CLO)	At the end of this course, the students will be enable to: <ul style="list-style-type: none"> • To understand importance of consumers. • To understand types of income, saving and investment. • To understand market and consumer behavior. • To understand Consumer Protection mechanism in India. • To understand Consumer Decision making process. 	
6	Credit Value	Practical: 2	
7	Total Marks	Max. Marks: 25	Min Passing Marks : 09

Part B: Content of the Course	
Total NO. of Periods : 15	
Tentative Practical List	<p>Note: This is tentative list; the teachers concern can add more Experiment as per requirement .</p> <ol style="list-style-type: none"> 1. Test for adulteration 2. Filling of different types of form to protect consumer 3: Filling of form of investment services 3. Activity of educate consumer 4. Collection of samples of different symbols for helping consumer buying 5. Project –Report preparation in any relevant area.

Part C: Learning Resources
Text Books. Reference Books, Other Resources
<p>Suggested Readings:</p> <ol style="list-style-type: none"> 1. Consumer Protection and Business Ethics: Saroj Hiremath, 2nd edition, Nirali Publication. 2. Consumer Economics: Garima Tripathi, 1st edition, Shri ViNOD pustak Mandir Publication. 3. Consumer affairs: Khanna S.R, 3rd edition, Universities Press India Publication. 4. Consumer Behaviour: Situn Krushna Sahu, 1st edition, Notion Press publication. 5. Consumer Protection Rights in India: Sushil Kumar Sen, 3rd edition, Bookwell publication. 6. Trade Practices and Consumerism: Sherlekar, 9th edition, Himalaya Publishing House. 7. The Economics of Consumption: Cochrane, 11th edition, Mc Graw hill Publication. <p>E:learning Resources:</p> <ol style="list-style-type: none"> 1. Test for adulteration:

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<https://www.google.com/search?q=1.%09Test+for+adulterationandrlz=1C1JJTC>

Part D: Assessment and Evaluation

Suggested Continuous Evaluation Methods::

Maximum Marks: 25

Continuous Comprehensive Evaluation(CCE): Not Applicable

University Exam (UE): 25

Internal Assessment :

Continuous Comprehensive
Evaluation (CCE)

Class Test
Assignment/Presentation

Not Applicable



आज दिनांक 31.05.2022 को केन्द्रीय अध्ययन मण्डल की मीटिंग गृहविज्ञान विभाग में आयोजित की गई जिसमें निम्नलिखित सदस्य उपस्थित हुए तथा विभिन्न गृहविज्ञान से संबंधित विषयों के पाठ्यक्रम संशोधित एवं अनुमोदित किये गये-

डॉ. सीमा मिश्रा, शासकीय विलासा कन्या महाविद्यालय, विलासपुर	- अध्यक्ष,
डॉ. बबीता दुवे	- प्रतिनिधि, उच्च शिक्षा विभाग, नया रायपुर
डॉ. भारती सेठी, डॉ. खूबचंद बघेल शासकीय स्नातकोत्तर महाविद्यालय, भिलाई-3, दुर्ग	- सदस्य
डॉ. संध्या वर्मा, शासकीय कला एवं वाणिज्य महावि. देवेन्द्र नगर, रायपुर	- सदस्य
डॉ. संध्या मदन मोहन, प्राचार्य, भिलाई महिला महाविद्यालय, भिलाई, एवं अध्यक्ष, अध्ययन मण्डल, हेमचंद्र यादव विश्वविद्यालय	- सदस्य
डॉ. रश्मि मिंज, दूधाधारी महिला महावि. रायपुर	- सदस्य
डॉ. अल्का दुग्गल, वामन राव पाटनकर महिला महावि, दुर्ग	- सदस्य
डॉ. निशा श्रीवास्तव, होलीकास महिला महावि. अंबिकापुर	- सदस्य
डॉ. शिप्रा बनर्जी, दूधाधारी महिला महावि. रायपुर	- सदस्य
श्रीमती ममता आर. देव, शासकीय कमलादेवी राठी महिला स्नातको. महावि. राजनांदगांव छ.ग.	- सदस्य
सुश्री सुषमा घई, शासकीय विलासा कन्या महाविद्यालय, विलासपुर	- सदस्य
डॉ. दीपाली राव, शासकीय घनश्याम सिंह गुप्त स्नातको. महावि, बालोद	- सदस्य
डॉ. अर्चना दीक्षित, शासकीय विलासा कन्या महाविद्यालय, विलासपुर	- सदस्य
डॉ. शोभा महिस्वर, शासकीय माता शबरी महावि. विलासपुर	- सदस्य

डॉ. वर्षा डोडिया, विषय विशेषज्ञ तथा शेष अन्य सदस्य ऑन लाइन उपस्थित रहे.



Part A: Introduction			
Program: Diploma Course		Class: B.Sc. Clinical Nutrition II	Year: 2022 Session: 2022-2023
		Year	
1	Course Code	CN-3T	
2	Course Title	Biochemistry and Microbiology	
3	Course Type	Theory	
4	Pre-requisite (if any)	No	
5	Course Learning Outcomes (CLO)	At the end of this course, the students will be enable to: <ul style="list-style-type: none"> • To understand Basic Knowledge Biochemistry. • To understand Basic knowledge Microbiology. • To understand Basic knowledge Nucleic acids and genetic material. • To understand Basic knowledge Food Safety & Standards. • To understand Basic knowledge environmental Microbiology. 	
6	Credit Value	Theory: 4	
7	Total Marks	Max. Marks: 60+15	Min Passing Marks : 25

Part B: Content of the Course		
Total No. of Periods: 60		
Unit	Topics	No. of Periods
I	Enzymes: Structure, Classification, Factor Affecting the action Carbohydrates: Structure, Classification, Functions, Properties Carbohydrates metabolism: Glycolysis, TCA Cycle, Gluconeogenesis, Glycogenolysis, Glycogenesis.	12
II	Protein: Structure, Classification, Functions, biological Value, Essential and Non-Essential Amino Acids, Properties. Metabolism: Urea Cycle. Nucleo- proteins: Basic Structure and functions.	12
III	Fats: Structure, Classification, Properties, Essential Fatty Acids, Functions. Metabolism: B-Oxidation of Fat. Hormones: Insulin, Thyroxin, Sex Hormones, Adrenal Hormones, Pituitary Hormones- their hypo and Hyper Activity.	12
IV	Structure and classification of some common microbes: (Bacteria, Fungi, Virus, Yeast, Moulds). Microbiology of different Foods, Spoilage and contaminations, Effects on the Following: Cereal and Cereal products, Sugar and Sugar Products. Vegetables and Fruits, Meat and Meat products, Fish and Other Foods Egg and Poultry, Milk and Milk Products Canned Food	12

V	Beneficial Effects of Microorganisms: Food Toxicity due to Microorganism and any five micro-originate diseases. Environmental Microbiology - Water, Air, Sewage, Soil.	12
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Keywords:- Enzymes, Co-enzymes, Metabolic Cycles, Gluconeogenesis, Glycolysis, TCA Cycle, Urea Cycle, Beta- oxidation, Microbiology of foods, Environmental Microbiology.

Part C: Learning Resources

Text Books, Reference Books, Other Resources

Suggested Readings:

- 1 Fundamental of Biochemistry-Dr.J.L.Jain,1st edition, S.Chand Publication.
- 2 Biochemistry- U.Satyanarayan,6th edition,Elsevier.
- 3 Microbiology- Michael J. Pelczar,Indian edition, Mc Graw Hill Publication.
- 4 Biochemistry- Harbans Lal,2nd edition,CBS Publication.
- 5 Textbook of Biochemistry and human Biology - G.P. Talwar, 3rd edition,PHI publication.
- 6 Fundamental of Biochemistry- K.Ramadevi,8th edition, Wolters Kluwer Publication .

E-learning Resources:

1. Carbohydrates
<https://www.google.com/search?q=carbohydrates+biochemistry&rlz=1C1JJTC>
2. Enzymes
<https://www.google.com/search?q=enzymes+biochemistry&rlz=1C1JJTC>
<https://www.youtube.com/watch?v=-sIPtkO2d9g>
3. Food Toxicity
<https://www.google.com/search?q=Food+Toxicity&rlz=1C1JJTC>
[https://chem.libretexts.org/Bookshelves/Introductory_Chemistry/Chemistry_for_Changing_Times_\(Hill_and_McCreary\)/22%3A_Poisons/22.01%3A_Natural_Poisons_and_Food_Poisoning](https://chem.libretexts.org/Bookshelves/Introductory_Chemistry/Chemistry_for_Changing_Times_(Hill_and_McCreary)/22%3A_Poisons/22.01%3A_Natural_Poisons_and_Food_Poisoning)

Part D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:-

Maximum Marks: 75

Continuous Comprehensive Evaluation(CCE): 15

University Exam (UE): 60

Internal Assessment :

Continuous Comprehensive Evaluation (CCE)

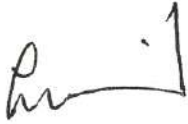
Class Test
Assignment/Presentation

Two Test each of 15
Total Marks: 15
(Mean of Two Tests + Assignment
Divided by 2)

आज दिनांक 31.05.2022 को केन्द्रीय अध्ययन मण्डल की मीटिंग गृहविज्ञान विभाग में आयोजित की गई जिसमें निम्नलिखित सदस्य उपस्थित हुए तथा विभिन्न गृहविज्ञान से संबंधित विषयों के पाठ्यक्रम संशोधित एवं अनुमोदित किये गये-

डॉ. सीमा मिश्रा, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- अध्यक्ष,
डॉ. बबीता दुवे	- प्रतिनिधि, उच्च शिक्षा विभाग, नया रायपुर
डॉ. भारती सेठी, डॉ. खूबचंद बघेल शासकीय स्नातकोत्तर महाविद्यालय, भिलाई-3, दुर्ग	- सदस्य
डॉ. संध्या वर्मा, शासकीय कला एवं वाणिज्य महावि. देवेन्द्र नगर, रायपुर	- सदस्य
डॉ. संध्या मदन मोहन, प्राचार्य, भिलाई महिला महाविद्यालय, भिलाई	- सदस्य
एवं अध्यक्ष, अध्ययन मण्डल, हेमचंद यादव विश्वविद्यालय	
डॉ. रश्मि मिंज, दूधघारी महिला महावि. रायपुर	- सदस्य
डॉ. अल्का दुग्गल, वामन राव पाटनकर महिला महावि, दुर्ग	- सदस्य
डॉ. निशा श्रीवास्तव, होलीकास महिला महावि. अंबिकापुर	- सदस्य
डॉ. शिप्रा बनर्जी, दूधघारी महिला महावि. रायपुर	- सदस्य
श्रीमती ममता आर. देव, शासकीय कमलादेवी राठी महिला स्नातको. महावि. राजनांदगांव छ.ग.	- सदस्य
सुश्री सुषमा घई, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- सदस्य
डॉ. दीपाली राव, शासकीय घनश्याम सिंह गुप्त स्नातको. महावि, बालोद	- सदस्य
डॉ. अर्चना दीक्षित, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- सदस्य
डॉ. शोभा महिस्वर, शासकीय माता शबरी महावि. बिलासपुर	- सदस्य

डॉ. वर्षा डोडिया, विषय विशेषज्ञ तथा शेष अन्य सदस्य अग्न लाइन उपस्थित रहे.



Part A: Introduction

Program: Diploma Course		Class: B.Sc. Clinical Nutrition II	Year: 2022	Session: 2022-2023
		Year		
1	Course Code	CN-4T		
2	Course Title	Basic Dietetics and Community Nutrition		
3	Course Type	Theory		
4	Pre-requisite (if any)	No		
5	Course Learning Outcomes (CLO)	<p>At the end of this course, the students will be able to:</p> <ul style="list-style-type: none"> • To understand Basic Knowledge of Nutrients. • To understand Basic Knowledge of food groups. • To understand Basic Knowledge of Nutritional Deficiency Disease. • To understand Basic Knowledge of Food supplements & Enrichment. • To understand Basic Knowledge of Food adulteration. 		
6	Credit Value	Theory: 4		
7	Total Marks	Max. Marks: 60+15	Min Passing Marks : 25	

Part B: Content of the Course

Total No. of Periods: 60

Unit	Topics	No. of Periods
I	<p>Food Guide and Food Standard: Basic Principles of Meal Planning: Objectives, steps, Balanced Diet.</p> <p>Nutrition during Pregnancy and Lactation: Physiological stages of pregnancy, nutritional requirements.</p> <p>Nutrition during Infancy: Breast Feeding and its Implications- Hazards of Bottle Feeding, Weaning, Foods: Planning, Formulating and preparing. Importance of correct and timely, weaning, Supplementary Foods.</p>	12
II	<p>Early and Late Childhood: Growth and Development, Nutritional Requirement, Nutritional Deficiencies prevalent in this age group.</p> <p>Nutrition during Adolescence and Geriatric Nutrition: Nutritional Needs, Factors affecting good nutritional Status.</p> <p>Nutrition in Special Conditions: Air Travelling, Space Travelling, For Sports persons.</p>	12
III	<p>Nutrition and health in national development: Nutritional Problems confronting our country: the causes of Malnutrition in India, Balance between food and population growth.</p> <p>Methods of Assessment of Nutritional status: Sampling Techniques, Identification of rich groups.</p> <p>Direct Assessments: Diet Survey, Anthropometry, Clinical and Biochemical Estimations.</p> <p>Indirect Assessments: Food Balance Sheets and Agricultural Data, Ecological Parameters and Vital Statistics.</p>	12



IV	Nutrition Intervention Schemes: in the community, lectures and Demonstrations, Nutrition Exhibitions and Visual Aids, SNP., ANP, Mid Day Meal Program, FAO, WHO, UNICEF, CARE, AID, ICMR, CSIR, NIN, CFTRI, Recent advances in community nutrition research.	12
V	Nutrition and Infection: Relationship, Immunization and its importance Fortification, Enrichment of Foods, Nutrients and Drug Interaction, Food Adulteration, Food Supplements, Food Additives.	12
Keywords: Food Guide and Food Standard, Early and Late Childhood, Nutrition and health, Nutrition Intervention Schemes in the community, Nutrition and Infection.		

Part C: Learning Resources

Text Books, Reference Books, Other Resources

Suggested Readings:

- 1 Dietetics - Srilakshmi, B. ,8th edition, New Age International P. Ltd.
- 2 Nutrition and Health -Garg, M. Diet, 2nd edition, ABD Publishers.
- 3 Food, Nutrition and Diet Therapy – Krause,9th W.B. Saunders Company,
- 4 Dietetics - B. Shrilaxmi ,8th edition, new age international publishers.
- 5 Human Nutrition and Dietetics- Passmore,8th edition, Livingstone Publishers.
- 6 Normal and Therapeutic Nutrition- Robinson,17th edition, MacMillan publishing Company,
- 7 Food, Nutrition and Diet Therapy- Krause, 11th edition, Saunders Publishers.
- 8 Nutrition and Diet Therapy- Williams,4th edition, C.V.Mosby Co. Publishers.
- 9 Modern Nutrition in Health and Disease- Shils, M.E. Olson,8th edition, Lea and Febigera Waverly Company Publishers.

E-learning Resources:

1. Diet for pregnancy-
https://www.google.com/search?q=diet+for+pregnant+women&rlz=1C1JJTC_enIN950IN950&sxsr=ALiCzsbC
2. Methods of Assessment of Nutritional status-
<https://www.google.com/search?q=methods+of+nutritional+assessment&rlz=1C1JJTC>
3. Basic Principles of Meal Planning-
https://www.google.com/search?q=Meal+planning&rlz=1C1JJTC_enIN950IN950

Part D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:-

Maximum Marks: 75

Continuous Comprehensive Evaluation(CCE): 15

University Exam (UE): 60

Internal Assessment:

Continuous Comprehensive Evaluation (CCE)

Class Test
Assignment/Presentation

Two Test each of 15
Total Marks: 15
(Mean of Two Tests + Assignment
Divided by 2)

Part A: Introduction			
Program: Diploma Course		Class: B.Sc. Clinical Nutrition II Year	Year: 2022 Session: 2022-2023
1	Course Code	CN-2P	
2	Course Title	LAB2: Normal and Therapeutic Nutrition	
3	Course Type	Practical	
4	Pre-requisite (if any)	Theoretical Knowledge of Medical Nutrition Therapy.	
5	Course Learning Outcomes (CLO)	At the end of this course, the students will be enable to: <ol style="list-style-type: none"> 1. To understand Basic Knowledge of Nutrients. 2. To understand Basic Knowledge hospital basic diet. 3. To understand Basic Knowledge of Normal Nutrition. 4. To understand Basic Knowledge various recipes. 5. To understand Basic Knowledge of analytics of nutrients. 	
6	Credit Value	practical:2	
7	Total Marks	Max. Marks: 50	Min Passing Marks : 17

Part B: Content of the Course	
Total No. of Periods: 30	
Tentative Practical List	<p>Note: This is tentative list; the teachers concern can add more Experiments as per requirement.</p> <ol style="list-style-type: none"> 1. Menu planning and preparation of different dishes according to different stages and conditions of life. <ol style="list-style-type: none"> a) Pregnancy b) Lactation c) Weaning infant d) Childhood e) Adolescence f) Geriatric Nutrition 2. Planning and preparation of High and Low Calorie diet. 3. Planning and preparation of Liquid and Soft diet. 4. Preparation of Beverages. 5. Rice and Pulses preparation. 6. Preparation of plain and stuffed vegetable. 7. Preparation of Salad and Sauces. 8. Preparation of Snacks. 9. Preparation of Sweets. 10. Preparation of Bakery items. 4. Project- (1) Estimation tests of Glucose, protein, Cholesterol, Blood and acetone etc in urine. <p style="text-align: center;">(2) Estimation of Ascorbic Acid by 2-6 Di – Chlorophenol indophenols method in different citrus foods.</p>

Part C: Learning Resources

Text Books, Reference Books, Other Resources

Suggested Readings:

- 1 Dietetics - Srilakshmi, B. ,8th edition, New Age International P. Ltd.
- 2 Nutrition and Health -Garg, M. Diet, 2nd edition, ABD Publishers.
- 3 Food, Nutrition and Diet Therapy – Krause,9th W.B. Saunders Company,
- 4 Dietetics - B. Shrilaxmi ,8th edition, new age international publishers.
- 5 Human Nutrition and Dietetics- Passmore,8th edition, Livingstone Publishers.
- 6 Normal and Therapeutic Nutrition- Robinson,17th edition, MacMillan publishing Company,
- 7 Food, Nutrition and Diet Therapy- Krause, 11th edition, Saunders Publishers.
- 8 Nutrition and Diet Therapy- Williams,4th edition, C.V.Mosby Co. Publishers.
- 9 Modern Nutrition in Health and Disease- Shils, M.E. Olson,8th edition, Lea and Febigera Waverly Company Publishers.

E-learning Resources:

1. Diet for pregnancy
https://www.google.com/search?q=diet+for+pregnant+women&rlz=1C1JJTC_enIN950IN950&sxsrf=ALiCzsbC
2. Methods of Assessment of Nutritional status
<https://www.google.com/search?q=methods+of+nutritional+assessment&rlz=1C1JJTC>
3. Basic Principles of Meal Planning
https://www.google.com/search?q=Meal+planning&rlz=1C1JJTC_enIN950IN950

Part D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:-

Maximum Marks: 50

Continuous Comprehensive Evaluation (CCE): Not Applicable

University Exam (UE): 50

Internal Assessment:

Continuous Comprehensive Evaluation (CCE)

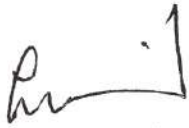
Class Test
Assignment/Presentation

Not Applicable

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डॉ. सीमा मिश्रा, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- अध्यक्ष,
डॉ. बबीता दुबे	- प्रतिनिधि, उच्च शिक्षा विभाग, नया रायपुर
डॉ. भारती सेठी, डॉ. खूबचंद बघेल शासकीय स्नातकोत्तर महाविद्यालय, मिललाई-3, दुर्ग	- सदस्य
डॉ. संध्या वर्मा, शासकीय कला एवं वाणिज्य महावि. देवेन्द्र नगर, रायपुर	- सदस्य
डॉ. संध्या मदन मोहन, प्राचार्य, मिललाई महिला महाविद्यालय, मिललाई, एवं अध्यक्ष, अध्ययन मण्डल, हेमचंद यादव विश्वविद्यालय	- सदस्य
डॉ. रश्मि मिंज, दूधाधारी महिला महावि. रायपुर	- सदस्य
डॉ. अल्का दुग्गल, वामन राव पाटनकर महिला महावि, दुर्ग	- सदस्य
डॉ. निशा श्रीवास्तव, होलीकास महिला महावि. अंबिकापुर	- सदस्य
डॉ. शिप्रा बनर्जी, दूधाधारी महिला महावि. रायपुर	- सदस्य
श्रीमती ममता आर. देव, शासकीय कमलादेवी राठी महिला स्नातको. महावि. राजनांदगांव छ.ग.	- सदस्य
सुश्री सुषमा घई, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- सदस्य
डॉ. दीपाली राव, शासकीय घनश्याम सिंह गुप्त स्नातको. महावि, बालोद	- सदस्य
डॉ. अर्चना दीक्षित, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- सदस्य
डॉ. शोभा महिस्वर, शासकीय माता शबरी महावि. बिलासपुर	- सदस्य

डॉ. वर्षा डोडिया, विषय विशेषज्ञ तथा शेष अन्य सदस्य अगंत लाइन
उपस्थित रहे.



Part A: Introduction			
Program: Diploma Course		Class: B.Sc. Food & Quality Control II Year	Year: 2022 Session: 2022-2023
1	Course Code	FQ-3T	
2	Course Title	Food Preservation, Sensory Evaluation & Food Packaging	
3	Course Type	Theory	
4	Pre-requisite (if any)	NO	
5	Course Learning Outcomes (CLO)	<p>At the end of this course, the students will be able to:</p> <ul style="list-style-type: none"> • To understand Basics Knowledge of foods and nutrition. • To understand Basic knowledge of Food Microbiology And Sanitation. • To understand Basic knowledge of Carbohydrate. • To understand Basic knowledge of Protein. • To understand Basic knowledge of Minerals. • To understand Basic knowledge of Enzymes. • To understand Basic knowledge of Sensory evaluation and food Packaging. 	
6	Credit Value	Theory: 4	
7	Total Marks	Max. Marks: 60+15	Min Passing Marks : 25

Part B: Content of the Course		
Total Periods: 60		
Unit	Topics	No. of Periods
I	Food and its preservation: Preservation at domestic & industrial level, Principles of Food Preservation.	12
II	Spoilage of Food: Methods of Food preservation, Nutritive value of preserved food.	12
III	Palatability of Food and the measurement: of its acceptance, Sensory Evaluation, Panel of Judges, Sensory Characteristics of food, Data Analysis.	12
IV	Factors influencing sensory measurement: Attitude, motivation, Psychological errors adaption, Types of tests (Laboratory) used for sensory evaluation. Objective methods of evaluation: Density, Volume, tenderness, tension, viscosity, weight, moisture loss etc.	12
V	Importance of packaging: Various package forms: Products, tubes, tetra-packs, cans, bottles, Packaging material, Food and Food packaging interaction (Quality testing of packaging material), Food packaging laws.	12

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Keywords: Food and its preservation, Spoilage of Food, Palatability of Food and the measurement of its acceptance, Factors influencing sensory measurement, Types of tests, Importance of packaging.

Part C: Learning Resources

Text Books, Reference Books, Other Resources

Suggested Readings:

1. Food science- B. Shrilaxmi seventh edition, New Age International Publisher.
2. Fruit and vegetable preservation- R.P. Shrivastava,
3. Text book of Food Science and Technology -Avantina Sharma, Third Edition, CBS Publisher and Distributors. Pvt. Ltd.
4. Food processing and preservation, G. Subulakshmi, Shobha A UDIPI
5. Food processing and technology, Suresh Chandra, Durvesh Kumari, S.K. Goyal, Samsher.

E-learning Resources:

1. Food preservation
<https://youtu.be/2PgVWLjK0gE>
2. Food Preservation Part II. Preservation by Chemical preservatives.
<https://youtu.be/HTIetKeQx1g>
3. Food chemistry : preservatives & additives (beginners guide)
<https://youtu.be/9dhjmfdbQh8>
4. Physical and chemical methods of food preservation | Food and industrial Microbiology
<https://youtu.be/ItmBg5FBdRM>
5. Principles and methods of food preservation
<https://youtu.be/sE6ABn7qbmY>
6. CANNING: canning of fruits and vegetables. Types of cans process of canning.
https://youtu.be/XKvo9_Jdt4
7. खाद्य परिरक्षण //Food preservation
<https://youtu.be/WngqPRYWvAY>
8. Food Preservation Techniques? Definition, Principle, Physical & Chemical Methods
<https://youtu.be/M-5pgPzyCS4>
9. Chemical Preservation of Foods 1 Food Preservation Methods - Lesson 11 Food Processing Technology
<https://youtu.be/BQFC4APvqDo>
10. Food Preservation and Storage
<https://youtu.be/uRd3VzOfOJc>

Part D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:-

Maximum Marks: 75

Continuous Comprehensive Evaluation(CCE): 15

University Exam (UE): 60

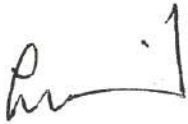
Internal Assessment : Continuous Comprehensive Evaluation (CCE)	Class Test Assignment/Presentation	Two Test each of 15 Total Marks: 15 (Mean of Two Tests + Assignment Divided by 2)
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आज दिनांक 31.05.2022 को केन्द्रीय अध्ययन मण्डल की मीटिंग गृहविज्ञान विभाग में आयोजित की गई जिसमें निम्नलिखित सदस्य उपस्थित हुए तथा विभिन्न गृहविज्ञान से संबंधित विषयों के पाठ्यक्रम संशोधित एवं अनुमोदित किये गये-

डॉ. सीमा मिश्रा, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- अध्यक्ष,
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डॉ. संध्या वर्मा, शासकीय कला एवं वाणिज्य महावि. देवेन्द्र नगर, रायपुर	- सदस्य
डॉ. संध्या मदन मोहन, प्राचार्य, मिलार्ड महिला महाविद्यालय, मिलार्ड,	- सदस्य
एवं अध्यक्ष, अध्ययन मण्डल, हेमचंद्र यादव विश्वविद्यालय	
डॉ. रश्मि मिंज, दूधघारी महिला महावि. रायपुर	- सदस्य
डॉ. अल्का दुग्गल, वामन राव पाटनकर महिला महावि, दुर्ग	- सदस्य
डॉ. निशा श्रीवास्तव, होलीकास महिला महावि. अर्बिकापुर	- सदस्य
डॉ. शिप्रा बनर्जी, दूधघारी महिला महावि. रायपुर	- सदस्य
श्रीमती ममता आर, देव, शासकीय कमलादेवी राठी महिला स्नातको. महावि. राजनांदगांव छ.ग.	- सदस्य
सुश्री सुषमा घई, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- सदस्य
डॉ. दीपाली राव, शासकीय घनश्याम सिंह गुप्त स्नातको. महावि, बालोद	- सदस्य
डॉ. अर्चना दीक्षित, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- सदस्य
डॉ. शोभा महिस्वर, शासकीय माता शबरी महावि. बिलासपुर	- सदस्य

डॉ. वर्षा डोडिया, विषय विशेषज्ञ तथा शेष अन्य सदस्य अग्न लाइन उपस्थित रहे.



Part A: Introduction			
Program: Diploma Course		Class: B.Sc. Food & Quality Control II Year	Year: 2022 Session: 2022-2023
1	Course Code	FQ-4T	
2	Course Title	Post Harvest Technology & Analytical Instrumentation	
3	Course Type	Theory	
4	Pre-requisite (if any)	No	
5	Course Learning Outcomes (CLO)	At the end of this course, the students will be enable to: <ul style="list-style-type: none"> • To understand Basic Knowledge of Food Processing. • To understand Basic Knowledge of Food analytics. • To understand Basic Knowledge of Investigation techniques. • To understand Basic Knowledge of Enrichment & Fortification. • To understand Basic Knowledge of Preservatives & Additives. 	
6	Credit Value	Theory:4	
7	Total Marks	Max. Marks: 60+15	Min Passing Marks : 25

Part B: Content of the Course		
Total Periods: 60		
Unit	Topics	No. of Periods
I	Principles of Food Processing: Physical: Principles underlying food processing operation including thermal processing, ionizing radiations, refrigeration, freezing dehydration etc. Chemical: Principles in Food Processing, Chemical changes in food that affects the texture, color, flavor, odor, stability and nutritive quality during processing and storage. Processing technology of cereals, legumes, oil seeds, fruits, vegetables, milk products and meat, fish and poultry.	12
II	Enrichment and fortification of food: Sprouting and fermentation, Extruded foods, Preservatives and additives, Quality control in food industry methods of evaluation and control of the various aspects of quality of raw material manufacturing process the testing of finished products.	12
III	Basics of Instrumentation: Physical: Chemical principles and methodology, Colorimeter, photometry, flame photometry.	12
IV	Chromatography: Principles and techniques (Thin layer, Gas liquid and highperformance liquid chromatography.) Electrophoresis: Principles and application paper, agar and beta carotene.	12

Princ

	Spectrophotometer: Phosphorus, ascorbic acids. Fluorimetry: Thiamin, Riboflavin.	
V	Principles and application of different techniques used in food and nutrition research: Computer Basics and application, Radioactive traces techniques.	12
Keywords: Principles of Food Processing, Enrichment and fortification of food, Basics of Instrumentation, Chromatography, Principles and application of different techniques used in food and nutrition research		

Part C: Learning Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

1. Post Harvest Technology- Uadal Singh, 4th edition, New Vishal Publication.
2. Post Harvest Management and Processing of Fruits and Vegetables-NS Rathore, 2nd edition, The energy and Resources Institute.
3. Instrumental Methods in Food Analysis- J.R.J.Pare, 18th edition, Elsevier Publication.

E-learning Resources:

1. Food Preservation Part II. Preservation by Chemical preservatives.
<https://youtu.be/HTIetKeQx1g>
2. Food chemistry : preservatives & additives (beginners guide)
<https://youtu.be/9dhjmfdbQh8>
3. Physical and chemical methods of food preservation | Food and industrial Microbiology
<https://youtu.be/ItmBg5FBdRM>
4. Food Preservation Techniques? Definition, Principle, Physical & Chemical Methods
<https://youtu.be/M-5pgPzyCS4>

Part D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:-

Maximum Marks: 75

Continuous Comprehensive Evaluation(CCE): 15

University Exam (UE): 60

Internal Assessment :

Continuous Comprehensive Evaluation (CCE)

Class Test
Assignment/Presentation

Two Test each of 15
Total Marks: 15
(Mean of Two Tests + Assignment
Divided by 2)

Part A: Introduction			
Program: Diploma Course		Class: B.Sc. Food & Quality Control II Year	Year: 2022 Session: 2022-2023
1	Course Code	FQ-2P	
2	Course Title	LAB2: Food Processing Technology	
3	Course Type	Practical	
4	Pre-requisite (if any)	Theoretical Knowledge of Food processing & preservation technology.	
5	Course Learning Outcomes (CLO)	<p>At the end of this course, the students will be enable to:</p> <ol style="list-style-type: none"> 1. To understand Basic Knowledge of Food Processing. 2. To understand Basic Knowledge of Food preservation.. 3. To understand Basic Knowledge of market survey of food commodities. 4. To understand Basic Knowledge of Investigation techniques. 5. To understand Basic Knowledge of Preservatives & Additives. 	
6	Credit Value	Theory: 2	
7	Total Marks	Max. Marks: 50	Min Passing Marks : 17

Part B: Content of the Course	
Total Periods :30	
Tentative Practical List	<p>Note: This is tentative list; the teachers concern can add more Experiments as per Requirement:</p> <ol style="list-style-type: none"> 1. Preparation of Jam, Jellies, Marmalades. 2. Preparation of Pickles & chutneys. 3. Dehydration of Vegetables & Fruits. 4. Preparation of synthetic syrups & squashes. 5. Preparation of Sauces. 6. Preparation of Papad, Badi, Chips. 7. Project:-Survey of Market product. 8. Packaging. 9. Paper Chromatography-separation of Amino Acids. 10. Spectrophotometer based analysis of nutrients.

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Part C: Learning Resources

Text Books, Reference Books, Other Resources

Suggested Readings:

1. Post Harvest Technology- Uadal Singh, 4th edition, New Vishal Publication.
2. Post Harvest Management and Processing of Fruits and Vegetables- NS Rathore, 2nd edition, The energy and Resources Institute.
3. Instrumental Methods in Food Analysis- J.R.J.Pare, 18th edition, Elsevier Publication.

E-learning Resources:

1. Making of Jam and jelly
[https://www.youtube.com/results?search_query=Making+of+jam+and+jellyFoodchemistry:preservatives & additives \(beginners guide\)](https://www.youtube.com/results?search_query=Making+of+jam+and+jellyFoodchemistry:preservatives+%26amp;+additives+(beginners+guide))
2. Making of Pickle
[https://www.youtube.com/results?search_query=making+picklesPhysical and chemical methods of food preservation](https://www.youtube.com/results?search_query=making+picklesPhysical+and+chemical+methods+of+food+preservation)
3. Preparation of Papad and Badi.
https://www.youtube.com/results?search_query=Preparation+of+papad+and+badi

Part D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:-

Maximum Marks: 50

Continuous Comprehensive Evaluation (CCE): Not Applicable

University Exam (UE): 50

Internal Assessment:

Continuous Comprehensive Evaluation (CCE)

Class Test
Assignment/Presentation

Not Applicable

आज दिनांक 31.05.2022 को केन्द्रीय अध्ययन मण्डल की मीटिंग गृहविज्ञान विभाग में आयोजित की गई जिसमें निम्नलिखित सदस्य उपस्थित हुए तथा विभिन्न गृहविज्ञान से संबंधित विषयों के पाठ्यक्रम संशोधित एवं अनुमोदित किये गये-

डॉ. सीमा मिश्रा, शासकीय बिलासा कन्या महाविद्यालय, बिलासपुर	- अध्यक्ष,
डॉ. बबीता दुबे	- प्रतिनिधि, उच्च शिक्षा विभाग, नया रायपुर
डॉ. भारती सेठी, डॉ. खूबचंद बघेल शासकीय स्नातकोत्तर महाविद्यालय, मिलाई-3, दुर्ग	- सदस्य
डॉ. संध्या वर्मा, शासकीय कला एवं वाणिज्य महावि. देवेन्द्र नगर, रायपुर	- सदस्य
डॉ. संध्या मदन मोहन, प्राचार्य, मिलाई महिला महाविद्यालय, मिलाई, एवं अध्यक्ष, अध्ययन मण्डल, हेमचंद यादव विश्वविद्यालय	- सदस्य
डॉ. रश्मि मिंज, दूधधारी महिला महावि. रायपुर	- सदस्य
डॉ. अल्का दुग्गल, वामन राव पाटनकर महिला महावि. दुर्ग	- सदस्य
डॉ. निशा श्रीवास्तव, होलीकास महिला महावि. अबिकापुर	- सदस्य
डॉ. शिप्रा बनर्जी, दूधधारी महिला महावि. रायपुर	- सदस्य
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डॉ. शोभा महिस्वर, शासकीय माता शबरी महावि. बिलासपुर	- सदस्य

डॉ. वर्षा डोडिया, विषय विशेषज्ञ तथा शेष अन्य सदस्य अग्न लाइन
उपस्थित रहे,

