



University of Rajasthan

Jaipur

SYLLABUS

(Three/Four Year Under Graduate Programme)

B.Sc. -Home Science I - IV Semester
Examination-2024-25

Three Year Bachelor Degree (Level 5 to 7) with Exit Policy involving Certificate after one year (Level 5), Diploma after two Years (Level 5 &6) (BSc Home Science)

The three-year course will have six semesters beginning at level 5 (Semester I and II) for certificate course, level 6 (Semester I to IV) for Diploma and level 7 (Semester I to VI). Each level will have 40 credits each, and to attain a Bachelor degree 120 credits have to be earned.

The number of papers and the maximum marks for each paper together with the maximum marks required for a pass course are shown in the scheme of examination against each subject separately. It will be necessary for a candidate to pass in theory as well as practical part of a subject paper, wherever prescribed, separately.

1 credit = 25 marks for examination/evaluation

Continuous assessment, in which sessional work and the terminal examination will contribute to the final grade. Each course in Semester Grade Point Average (SGPA) has two components- Continuous assessment (20% weightage) and (End of Semester Examination) EOSE (80% weightage).

1. Sessional work will consist of class tests, mid-semester examination(s), homework assignments, etc., as determined by the faculty in charge of the courses of study.

2. Each Paper of EOSE shall carry 80% of the total marks of the course/subject. The EOSE will be of 3 hours duration.

- Part-A of the question paper shall consist of first question of 16 marks (with 8 short answer type questions of 2 marks each, 2 questions from each of the unit). The first question shall be based on knowledge, understanding and applications of the topics/texts covered in the syllabus.
- Part B of the question paper shall consist of four questions of 16 marks each, one from each unit with internal choice. Each question will have four parts. A candidate is required to attempt all four units by taking any two parts from each question.

3. 75% Attendance is mandatory for appearing in EOSE.

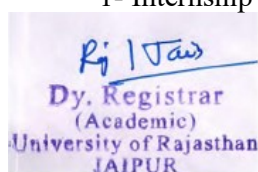
4. To appear in the EOSE examination of a course/subject student must appear in the mid-semester examination and obtain at least a C grade in the course/subject.

5. Credit points in a Course/Subject will be assigned only if, the student obtains at least a C grade in midterm and EOSE examination of a Course/Subject.

Contact Hours -

15 Weeks per Semester

L-Lecture	(1 Credit = 1 Hour/Week)
T-Tutorial	(1 Credit = 1 Hour/Week)
S-Seminar	(1 Credit = 2 Hours/Week)
P-Practical/Practicum	(1 Credit = 2 Hours/Week)
F-Field Practice/Projects	(1 Credit 2 Hours/Week)
SA - Studio Activities	(1 Credit = 2 Hours/Week)
1- Internship	(1 Credit = 2 Hours/Week)



Structure of Four Year's Bachelor of Science (Home Science)

Programme Code	UG0808	Programme Faculty	Science	Programme Name	Four Year Bachelor of Science (Home- Science)
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Eligibility / Pre-requisite of the Programme-12th Class from CBSE or Rajasthan Board or recognised Board

Degree Name -Four Year Bachelor of Science (Home- Science)

Entry and Exit Policy

Programme Name	Degree Name	Exit Year
Four Year Bachelor of Science (Home- Science)	Certificate in Home Sc.	I Year
	Diploma in Home Sc.	II Year
	Bachelor of Science (Home Sc.)	III Year
	Bachelor of Science (Home Sc. Hons.) / B.Sc. (Home Sc. Hons.)	IV Year
	Bachelor of Science (Home Sc. Hons. With Research) / B.Sc. (Home Sc. Hons. With Research)	

List of Major, Minor and Interdisciplinary/Multidisciplinary Subjects-

Programme Outcome – Learning outcomes of the Course

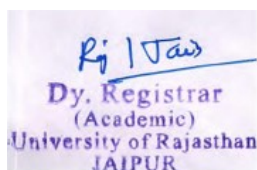
The five subjects of Home Science are Food and Nutrition, Human Development and Family Studies, Resource Management and Design Application, Development Communication and Extension and Fabric and Apparel Sciences.

Years of national and international experience in the field has contributed to the wisdom that all the five windows of opportunity that Home Science offers be opened, i.e. Food and Nutrition, Human Development and Childhood Studies, Resource Management and Design Application, Development Communication and Extension and Fabric and Apparel Sciences. In this course, the students will learn the fundamental principles and foundations of all the five areas. They are expected to internalize the principle of a Home Scientist, that is, to give back to the community from which they draw, for sustainable development. This is a major contribution of Home Science in both developed and developing societies.

Programme Objective –

The objectives of the present B.Sc. Program Home Science course are:

- To understand and appreciate the role of interdisciplinary sciences in the development and well- being of individuals, families and communities
- To learn about the sciences and technologies that enhance quality the life of people

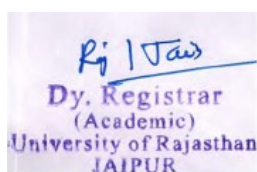


- To acquire professional and entrepreneurial skills for economic empowerment of the student in particular, and community in general
- To develop professional skills in food, nutrition, textiles, housing, product making, communication technologies and human development
- To take science from the laboratory to the people

Exit and Entrance Policy

1. Students who opt to exit after completion of the first year and have secured 48 credits will be awarded a UG Certificate if, in addition, they complete one internship of 4 credits during the summer vacation of the first year. These students are allowed to re-enter the degree programme within three years and complete the degree programme within the stipulated maximum period of seven years.
2. Students who opt to exit after completion of the second year and have secured 96 credits will be awarded the UG diploma if, in addition, they complete one internship of 4 credits during the summer vacation of the second year. These students are allowed to re-enter within a period of three years and complete the degree programme within the maximum period of seven years.
3. Students who wish to undergo a 3-year UG programme will be awarded UG Degree in the Major discipline after successful completion of three years, securing 150 credits and satisfying the minimum credit requirement.
4. A four-year UG Honours degree in the major discipline will be awarded to those who complete a four-year degree programme with 200 credits and have satisfied the minimum credit requirements.
5. Students who secure 75% marks and above in the first six semesters and wish to undertake research at the undergraduate level can choose a research stream in the fourth year. They should do a research project or dissertation under the guidance of a faculty member of the University/College. The research project/dissertation will be in the major discipline. The students who secure 200 credits, including 12 credits from a research project/dissertation, are awarded UG Degree (Honours with Research).

For exit after 1st year, minimum credit requirement is 48 from the course and 4 credits from the internship, hence the certificate is @52 credits. After 1st year Internship is mandatory for exiting at this stage.



SEMESTER-I

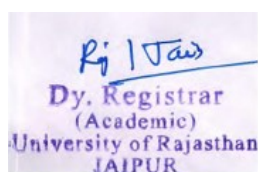
Course Code	Course Title	Course Type	L	T	P	Credit
HSC 51T 151	Communication and Extension Theory	Discipline Centric Core (Major)	4	0	0	4
HSC 51P 152	Communication and Extension Practical	Discipline Centric Core (Major)	0	0	2	2
HSC 51T 153	Resource management Theory	Discipline Centric Core (Major)	4	0	0	4
HSC 51P 154	Resource management Practical	Discipline Centric Core (Major)	0	0	2	2
HSC 51T 155	Fashion Studies Theory	Discipline Centric Core (Major/Minor)	4	0	0	4
HSC 51P 156	Fashion Studies Practical	Discipline Centric Core (Major/Minor)	0	0	2	2
AEC	Language-Hindi	Ability Enhancement Course	4	0	0	4
SEC 1		Skill Enhancement Course	2	0	0	2
VAC 1		Value Added Course				2
Total Credit						26

SEMESTER-II

Course Code	Course Title	Course Type	L	T	P	Credit
HSC 52T 157	Fundamentals of Nutrition and Food Science Theory	Discipline Centric Core (Major)	4	0	0	4
HSC 52P 158	Fundamentals of Nutrition and Food Science Practical	Discipline Centric Core (Major)	0	0	2	2
HSC 52T 159	Foundation of Human Development Theory	Discipline Centric Core (Major)	4	0	0	4
HSC 52P 160	Foundation of Human Development Practical	Discipline Centric Core (Major)	0	0	2	2
HSC 52T 161	Fundamentals of Textiles Theory	Discipline Centric Core (Major/Minor)	4	0	0	4
HSC 52P 162	Fundamentals of Textiles Practical	Discipline Centric Core (Major/Minor)	0	0	2	2
AEC	Language-English	Ability Enhancement Course	4	0	0	4
SEC 2		Skill Enhancement Course	2	0	0	2
VAC 2		Value Added Course				2
Total Credit						26

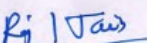
Credits offered for 1-year certificate: Year I Internship Total credits

$$52 + 4 = 56$$



SEMESTER-I

Course Code	Course Title	Course Type	L	T	P	Credit
HSC 51T 151	Communication and Extension Theory	Discipline Centric Core (Major)	4	0	0	4
HSC 51P 152	Communication and Extension Practical	Discipline Centric Core (Major)	0	0	2	2
HSC 51T 153	Resource management Theory	Discipline Centric Core (Major)	4	0	0	4
HSC 51P 154	Resource management Practical	Discipline Centric Core (Major)	0	0	2	2
HSC 51T 155	Fashion Studies Theory	Discipline Centric Core (Major/Minor)	4	0	0	4
HSC 51P 156	Fashion Studies Practical	Discipline Centric Core (Major/Minor)	0	0	2	2
AEC	Language-Hindi	Ability Enhancement Course	4	0	0	4
SEC 1		Skill Enhancement Course	2	0	0	2
VAC 1		Value Added Course				2
		Total Credit				26


 Dy. Registrar
 (Academic)
 University of Rajasthan
 JAIPUR

SEMESTER – I
CORE COURSE I

Code of the Course	Title of the Course	Level of Course	Credits of course
HSC 5IT 151	Communication and Extension	5	4
HSC 5IP 152	Communication and Extension	5	2
Type of Course		Delivery Type of the Course	
Major Course		Theory- Lecture, Sixty Lecture including diagnostic and formative assessments - during lecture hours Practical- Laboratory work and field visits.	
Prerequisites	Central Board of Secondary Education or equivalent.		
Objectives of the Course (Theory)	<ul style="list-style-type: none"> ● To acquaint students with the basic concepts and process of communication ● To sensitize the students and help them to understand the scope of communication and its importance in development ● To enable students, understand the barriers to human communication and various aspects of effective communication ● To make the students understand the concept of Extension and its related aspects. 		
Objectives of the Course (Practical)	<ul style="list-style-type: none"> ● To develop skills in planning and execution of a small group communication activities. ● To develop skill in designing and use of graphic media. 		

HSC 5IT 151- Communication and Extension

Theory Credit -4

60 Hours

Max. Marks: 20 + 80 marks

Min. Pass Marks: 8+ 32 marks

Unit 1 Communication: Concepts

18

- Meaning and definition of communication. Historical background, concept and nature.
- Functions of Communication. Information, command or instructive, influence or persuasive and integrating function of communication.
- Types of Communication-Formal and informal communication, Verbal and Non-Verbal Communication
- Communication and mainstream media – communication through written words.
- Newspaper, radio, television and Cinema, ICTs and web- based communication.

- Scope of Communication- Social Education, Organizational, Culture, Entertainment, Integrative, Corporate and Management of Organizations, Public relations.

Unit 2 Understanding Human Communication 16

- Culture and communication- Signs, symbols and codes in communication
- Postulates/Principles of Communication
- Elements of Communication and their characteristics
- Models of Communication
- Barriers to Communication
- Feedback in communication

Unit 3 Communicating Effectively 10

Concept nature and relevance to communication process:

- Empathy
- Persuasion
- Perception
- Listening
- Fidelity
- Heterophily and Homophily
- Making communication effective

Unit 4 Communication for Extension 16

- Concept, Nature and Philosophy of Extension education
- Process and Principles of Extension education
- Extension Worker: Qualities and Role
- Home Science Extension: Concept, Scope and its role in national development
- Relationship between, Communication, Extension and Development
- Importance of communication in extension

Suggested books and reference including links to e-resources –

- Barker, L. (1990). “Communication”, New Jersey: Prentice Hall, Inc; 171.
- Chouhan, A. and Dhawan. D. (2022): Home Science as a vocational subject: Challenges and opportunities, Star publications, Agra
- Dahama O.P. (1988) : Education and Communication for Development, Oxford and IBH Publishing Co. Pvt. Ltd. New –Delhi
- Devito, J. (1998) Human Communication. New York: Harper & Row.
- G.L. Ray (2008 or latest) Extension Communication and Mgt. Kalyani Publishers, New Delhi.
- Jain, R. (1993) Mass Media and Rural Development. Voll. II Manak Publication Pvt. Ltd. New-Delhi

- O.P. sharma & L.L. Somani, Dimensions of Ag. Extension (2012), Agrotech Pubshing Academy, Udaipur.
- Patri and Patri (2002); Essentials of Communication. Greenspan Publications
- Sagar mondal (2018) Fundamentals of Ag. Extension & education, Kalyani Publishers, New Delhi.
- Supe , S.V. (1997) An Introduction to Extension Education. Oxford IBH Publishing Co. Pvt. Ltd. , New-Delhi.
- Ummed Singh Krishi Prasaar & Prashikshan Bharti Bhandar 6 Sunil Complex, Westwern Kachhari road Meerut (In Hindi).
- Uttam Kumar Singh and A K Nayak , (1997) Extension Education, Commonwealth Publishers in association with Dr. Zakir Hussain Institute of Non-formal and Continuing Education.
- <https://www.iaritoppers.com/2019/06/communication-skills-icar-e-course-pdf-book-download.html>
- <https://www.agrimoon.com/wp-content/uploads/COMMUNICATION-SKILLS.pdf>
- <https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=8x0nJkh/R0vHkX1U70Z/CQ==>
- <https://egyankosh.ac.in/bitstream/123456789/9796/1/Unit-1.pdf>
- <http://ecoursesonline.iasri.res.in/course/view.php?id=161>
- https://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/S000827HE/P001412/M011632/ET/1458297353H12EE01Q1.pdf
- <http://ecoursesonline.iasri.res.in/course/view.php?id=93>
- <http://ecoursesonline.iasri.res.in/mod/page/view.php?id=15405>
- <https://icar.org.in/files/English-Unit/Home%20Science/COMMUNICATION%20FOR%20DEVELOPMENT.html>

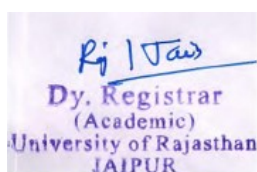
Learning Outcome of the Course –

- Understand communication process and its importance.
- Be familiar with and be able to use different communication media.
- Be acquainted with concept of extension and its related aspects.
- Understand the role of communication in extension and development.

HSC 5IP 152- Communication and Extension

Practical Credit -2
Max. Marks: 10 + 40 marks

30 Practicals (2 hours each)
Min. Pass Marks: 4+ 16 marks



1) Developing skill in planning and conducting small group communication. **13**
(any two)

- Meeting
- Discussion/ FGD
- Debate (lecture to a small group)
- Workshop

(Planning criteria – selection of the topic, formulation of broad outline, specifying the objective)

2) Designing and use of graphic media: PPT, short films **10**
3) Review of media on selected issues
4) Writing for newspaper, radio talks **7**

Scheme of Examination - Practical exam scheme: (Total 50 marks)

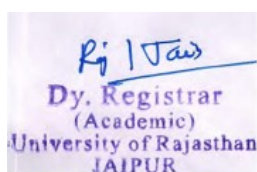
- Midterm: 10 marks
- Planning of a small group communication activity -20 marks
- Designing of a graphic aid: 20 marks

Suggested books and reference including links to e-resources –

- Dahama O.P. (1988) : Education and Communication for Development, Oxford and IBH Publishing Co. Pvt. Ltd. New –Delhi
- Devito, J. (1998) Human Communication. New York: Harper & Row.
- Dua, M.R. and Gupta V.S. Media and Development, AMIC Singapore and HarAnand Publications, New Delhi, 1994.
- Jain, R. (1993) Mass Media and Rural Development. Voll. II Manak Publication Pvt. Ltd. New-Delhi
- Mehta SR (Ed.). Communication and Development: Issuer and Perspective, Rawat Publications, Jaipur, 1992.
- Modi Bella: Designing Message for Development Communication and Audience Participation- Based Approach, Sage Publications, New Delhi, 1991.
- Patri and Patri (2002); Essentials of Communication. Greenspan Publications
- Umme, K. Information communication Technology in Educationl, H. P. Bhargave Book Honse, Agra, 2008.
- <https://flearningstudio.com/how-to-design-visual-aids-for-teaching-purpose/>
- <http://ecoursesonline.iasri.res.in/mod/page/view.php?id=65951>

Learning Outcome of the Course -

- Acquire skill in planning and execution of a small group communication activity.
- Understand the use of communication media.
- Acquire skill in designing a graphic media.



CORE COURSE II

Code of the Course	Title of the Course	Level of Course	Credits of course
HSC 5IT 153	Resource Management	5	4
HSC-51P 154	Resource Management	5	2
Type of Course		Delivery Type of the Course	
Major Course		Theory- Lecture, Sixty Lecture including diagnostic and formative assessments - during lecture hours Practical- Laboratory work and field visits.	
Prerequisites	Central Board of Secondary Education or equivalent.		
Objectives of the Course (Theory)	<ul style="list-style-type: none"> ● To introduce students to the fundamental concepts and principles of resource management in various contexts. ● To develop skills for identifying, conserving, and sustainably managing resources. ● To understand the scientific processes and application of managerial activities for resource utilization. 		
Objectives of the Course (Practical)	<ul style="list-style-type: none"> ● To introduce students to the fundamental concepts and principles of resource management in various contexts. ● To develop skills for identifying, conserving, and sustainably managing resources. ● To understand the scientific processes and application of managerial activities for resource utilization. 		

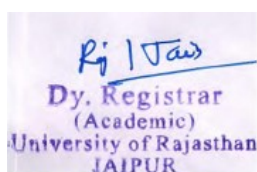
HSC 5IT 153- Resource Management

Theory Credit -4

60 Hours

Max. Marks: 20 + 80 marks

Min. Pass Marks: 8+ 32 marks



Unit 1: Introduction to Resource Management

- Concept, universality, and scope of management
- Approaches to management
- Ethics in management
- Motivation theory

Unit 2: Resources and Sustainability

- Meaning, classification, and characteristics of resources
- Factors affecting resource utilization
- Maximizing resource use and conservation
- Availability and management of specific resources (money, time, energy, space)
- Sustainable utilization of resources
- Application of management process in event planning and execution

Unit 3: Functions of Management: An overview

- Decision making
- Planning
- Supervising
- Controlling
- Organizing
- Evaluation

Unit 4: Resource Management in Organizational Context

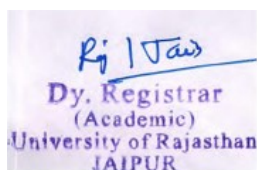
- Organizational resource management
- Human resource management
- Financial resource management
- Information resource management
- Strategies for effective resource allocation and utilization

Suggested books and reference including links to e-resources –

- Arora, R., Magu, P., Singh, P., Meghna, & Gupta, S. (2013). Resource Management: An Introductory Manual. Elite Publishing House Pvt. Ltd.
- Costanza, R., d'Arge, R., de Groot, R., Farber, S., Grasso, M., Hannon, B., ... & van den Belt, M. (1997). The value of the world's ecosystem services and natural capital. Nature, 387(6630), 253-260.
- Goel, S. (Ed.). (2016). Management of Resources for Sustainable Development. New Delhi: Blackswan Publications.
- Koontz, H., & O'Donnell, C. (2005). Management – A systems and contingency analysis of managerial functions. New York: McGraw-Hill Book Company.
- Kreitner (2009). Management Theory and Applications. Cengage Learning: India.
- Meadows, D. H., Meadows, D. L., Randers, J., & Behrens III, W. W. (1972). The limits to growth. Universe Books.
- Mital, M., & Sawhney, H. K. (2015). Family Finance and Consumer Studies. Elite Publishing House Pvt. Ltd.
- Rao, V.S., & Narayana, P.S. (2007). Principles and Practices of Management. Konark Publishers Pvt. Ltd.
- Rao, V.S., & Narayana, P.S. (2007). Principles and Practices of Management. Konark Publishers Pvt. Ltd.

Learning Outcome of the Course –

- Comprehend the concept, scope, and application of management in different facets of life.
- Understand the classification, characterization, and skillful management of resources.



- Recognize the significance and functions of management in various fields.
- Gain knowledge about resource availability and utility during different stages of the family life cycle.
- Develop skills for energy, time, and monetary resource management.
- Acquire decision-making abilities, SWOT analysis, and time and resource planning for self and family.
- Understand work simplification techniques, managerial skills, and sustainability.

HSC-51P 154- Resource Management

Practical Credit -2

30 Practicals (2 hours each)

Max. Marks: 10 + 40 marks

Min. Pass Marks: 4+ 16 marks

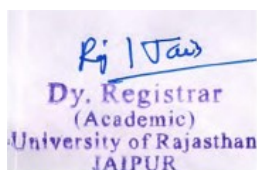
1. Resource conservation and optimization/green technologies (natural resources)
2. Identification and development of self as a resource
 - SWOT analysis and Micro lab
 - Building decision-making abilities through management games
3. Preparation of time plans for self and family
2. Time and Motion Study
3. Case studies and real-world application of resource management principles
4. Group projects on sustainable resource management

Scheme of Examination - Practical exam scheme: (Total 50 marks)

- **Midterm:** 10 marks
- **Major:** 20 marks : Time/Motion Study or Preparation of Time Plan for Self or Family
- **Minor:** 20 Marks
 - i. SWOT Analysis or Micro Lab
 - ii. Describe one resource conservation Tecnology

Suggested books and reference including links to e-resources –

- Arora, R., Magu, P., Singh, P., Meghna, & Gupta, S. (2013). Resource Management: An Introductory Manual. Elite Publishing House Pvt. Ltd.
- Costanza, R., d'Arge, R., de Groot, R., Farber, S., Grasso, M., Hannon, B., ... & van den Belt, M. (1997). The value of the world's ecosystem services and natural capital. Nature, 387(6630), 253-260.
- Goel, S. (Ed.). (2016). Management of Resources for Sustainable Development. New Delhi: Blackswan Publications.
- Koontz, H., & O'Donnell, C. (2005). Management – A systems and contingency analysis of managerial functions. New York: McGraw-Hill Book Company.
- Kreitner (2009). Management Theory and Applications. Cengage Learning: India.



- Meadows, D. H., Meadows, D. L., Randers, J., & Behrens III, W. W. (1972). The limits to growth. Universe Books.
- Mital, M., & Sawhney, H. K. (2015). Family Finance and Consumer Studies. Elite Publishing House Pvt. Ltd.
- Rao, V.S., & Narayana, P.S. (2007). Principles and Practices of Management. Konark Publishers Pvt. Ltd.
- Rao, V.S., & Narayana, P.S. (2007). Principles and Practices of Management. Konark Publishers Pvt. Ltd.

Learning Outcome of the Course –

- Apply techniques and strategies for conserving and optimizing natural resources.
- Understand the principles and practices of green technologies for sustainable resource management.
- Conduct a comprehensive SWOT analysis to assess personal strengths, weaknesses, opportunities, and threats.
- Apply micro lab techniques to develop and enhance personal skills and abilities.
- Demonstrate improved decision-making abilities through participation in management games.
- Create effective time plans that prioritize tasks and activities for personal and family management.
- Develop skills in time management, scheduling, and setting achievable goals.
- Apply time and motion study techniques to analyze and improve efficiency in personal and professional tasks.
- Identify areas of improvement for time utilization and resource optimization.

CORE COURSE III

Code of the Course	Title of the Course	Level of Course	Credits of course
HSC-51T 155	Fashion Studies	5	4
HSC-51P 156	Fashion Studies	5	2
Type of Course		Delivery Type of the Course	
Major Course		Theory- Lecture, Sixty Lecture including diagnostic and formative assessments - during lecture hours Practical- Laboratory work and field visits.	
Prerequisites	Central Board of Secondary Education or equivalent.		
Objectives of the Course (Theory)	<ul style="list-style-type: none"> ● To impart knowledge about functions and theories of clothing. ● To understand the basics of fashion and fashion industry. ● To develop sensitivity towards selection of garments and garment design. ● Understand basics of design. 		
Objectives of the Course (Practical)	<ul style="list-style-type: none"> ● To teach students the basics of designing ● To make them learn the application of these to apparels ● To familiarize them to the rich heritage design through visits. ● To introduce the basics of Fashion Drawing 		

HSC-51T 155- Fashion Studies**Theory Credit -4****60 Hours****Max. Marks: 20 + 80 marks****Min. Pass Marks: 8+ 32 marks****Unit 1 Importance of clothing****15**

- Clothing functions and theories of origin
- Clothing terminology
- Individuality and conformity, conspicuous consumption and emulation
- Selection of clothes for self
- Selection and Evaluation of ready-made garments

Unit 2 Fashion**15**

- Terminology
- Fashion cycle
- Sources of fashion
- Factors favouring and retarding fashion
- Fashion Forecasting-Seasons, sources, steps in forecasting

Unit 3 Adoption of fashion, fashion Centers and designers. 15

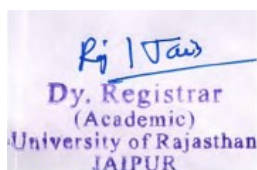
- Consumer groups- fashion leaders, followers
- Adoption process- Trickle-down theory, bottom-up theory & trickle across theory
- Role of designer
- Fashion centers and leading designers

Unit 4 Design 15

- Elements and principles of design
- Structural and applied design
- Introduction to Basic Textile designing – Motif and repeat
- Types of design :- Natural, stylised, geometrical and abstract

Suggested books and reference including links to e-resources –

- Brown, Patty, Rice J., 1998, Ready to Wear Apparel Analysis. Prentice Hall.
- Marshall S G, Jackson H O, Stanley MS, Kefgen M & Specht T, 2009, Individuality in Clothing & Personal Appearance, 6th Edition, Pearson Education, USA.
- Tate S.L., Edwards M.S., 1982, The Complete Book of Fashion Design, Harper and Row Publications, New York.
- https://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/S000827HE/P001410/M011375/ET/1541073865H07FD01-QI.pdf
- https://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/S000827HE/P001410/M011391/ET/1526964532H07FD08-QI.pdf
- <http://www.overdrive.com/>
- <http://www.scribd.com/>
- <http://www.gutenberg.org/>
- <https://www.fitnyc.edu/library/>
- <https://www.wgsn.com/>
- <https://fashionunited.com/>
- <https://www.businessoffashion.com/>
- <https://www.voguebusiness.com/>

Learning Outcome of the Course -

- Identify the role and functions of clothing and recognize the factors affecting selection and evaluation of clothing.
- Explain the concept of fashion, its terminology, sources and factors affecting it.
- Describe the global fashion industry and its leading designers.
- Classify and illustrate various components of garment.
- Apply the knowledge of elements and principles in design interpretation.

HSC-51P 156- Fashion Studies

Practical Credit -2

30 Practicals (2 hours each)

Max. Marks: 10 + 40 marks

Min. Pass Marks: 4+ 16 marks

- | | |
|---|-----------|
| 1) Identification of structural and applied design component in garments. | 2 |
| 2) Interpretation of elements and principles of design concepts from print and visual mediums. | 2 |
| 3) Introduction to elements of design. | 10 |
| <ul style="list-style-type: none"> ● Line and form – through drawings ● Colour – colour wheel, grey scale and value scale, intensity scale, colour schemes. ● Textures- different textures through different mediums ● Illustration techniques – strokes, hatching, shading; colouring techniques – medias for colouring. | |
| 4) Visit to Exhibition/ Musuem and Preparation of portfolio based on the visit. | 4 |
| <ul style="list-style-type: none"> ● Natural ● Stylised ● Geometrical ● Abstract. ● Traditional embroidery motif's | |
| 5) Fashion sketching | 10 |
| <ul style="list-style-type: none"> ● Technical drawing of fashion details: sleeves, yolks & necklines, bodices and skirts ● Drawing stick figures and Block figure ● Designing & Dressing on a croquie ● Formal & Traditional Wear | |
| 6) Market survey on different clothing brands to study the available styles, colours, materials and labels. | 1 |
| 7) Market survey on various trims and garment accessories. | 1 |

Scheme of Examination - (Total 50 marks)

- **Midterm: 10 marks**
- **Major problem:20**
Students exhibit advanced fashion sketching skills, adept at producing technical drawings with intricate details. They showcase their proficiency by creating designs on croquis, starting from pencil or block figure foundations, and excel in rendering style wear sketches with precision.
- **Minor problem:20 (2 problem)**
 - Texture Representation Challenge:** Illustrate various fabrics using diverse techniques, assessing students' proficiency in conveying tactile qualities through drawings.
 - Market Survey Report:** Compile a comprehensive report on clothing brands, styles, colors, materials, and labels, incorporating both written analysis and visual representation from the market survey.
 - Garment Detailing Test:** Choose a specific garment type and produce detailed technical drawings of sleeves, necklines, bodices, and skirts, evaluating students' accuracy in representing intricate fashion details.

Suggested books and reference including links to e-resources –

- Brown, Patty, Rice J., 1998, Ready to Wear Apparel Analysis. Prentice Hall.
- Fringes G.S., 1994, *Fashion from Concept to Consumer*, 6th edition, Printice Hall, New Jersey.
- Ireland, P.J. 2003, *Introduction to Fashion Design*, B.T. Batsford, London.
- Liechty, E.G., Potterberg, D.N., Rasband, J.A., 2010, Fitting and Pattern Alteration: A Multimethod Approach, Fairchild Publications, New York
- Marshall S G, Jackson H O, Stanley MS, Kefgen M & Specht T, 2009, Individuality in Clothing & Personal Appearance, 6th Edition, Pearson Education, USA.
- R. Andrew, 2018, *Key Concepts for Fashion Industry*, Bloomsbury Publishing, India.
- Tate S.L., Edwards M.S., 1982, The Complete Book of Fashion Design, Harper and Row Publications, New York
- <http://www.coursera.org/>
- <http://www.udemy.com/>
- <http://www.skillshare.com/>
- <http://www.fashionary.org/>
- <http://egyankosh.ac.in/handle/123456789/61101>

Learning Outcome of the Course –

- Student will be able to understand and interpret design components of a garment
- Will learn the basic drawing techniques
- They will develop skill in elementary Fashion drawing
- Students will have an idea of available accessories, trims and brands and details about them

SEMESTER-II

Course Code	Course Title	Course Type	L	T	P	Credit
HSC 52T 157	Fundamentals of Nutrition and Food Science Theory	Discipline Centric Core (Major)	4	0	0	4
HSC 52P 158	Fundamentals of Nutrition and Food Science Practical	Discipline Centric Core (Major)	0	0	2	2
HSC 52T 159	Foundation of Human Development Theory	Discipline Centric Core (Major)	4	0	0	4
HSC 52P 160	Foundation of Human Development Practical	Discipline Centric Core (Major)	0	0	2	2
HSC 52T 161	Fundamentals of Textiles Theory	Discipline Centric Core (Major/Minor)	4	0	0	4
HSC 52P 162	Fundamentals of Textiles Practical	Discipline Centric Core (Major/Minor)	0	0	2	2
AEC	Language-English	Ability Enhancement Course	4	0	0	4
SEC 2		Skill Enhancement Course	2	0	0	2
VAC 2		Value Added Course				2
		Total Credit				26

SEMESTER – II
CORE COURSE IV

Code of the Course	Title of the Course	Level of Course	Credits of course
HSC-52T 157	Fundamentals of Nutrition and Food Science	5	4
HSC-52P 158	Fundamentals of Nutrition and Food Science	5	2
Type of Course		Delivery Type of the Course	
Major Course		Theory- Lecture, Sixty Lecture including diagnostic and formative assessments - during lecture hours Practical- Laboratory work and field visits.	
Prerequisites	Central Board of Secondary Education or equivalent.		
Outcomes of the Course (Theory)	The course will enable the students to: <ul style="list-style-type: none"> ● Understand the concept of nutrients in relation to foods and food groups. ● Understand the details of various nutrients with respect to health. ● Plan and prepare nutrient rich recipes based on principles of cooking. 		
Outcomes of the Course (Practical)	<ul style="list-style-type: none"> ● To be aware about the availability of various food items in different categories in the market. ● To prepare nutrients rich recipes from different food groups by accurately weighing ingredients. ● Set table for various meals 		

HSC-52T 157- Fundamentals of Nutrition and Food Science

Theory Credit -4

60 Hours

Max. Marks: 20 + 80 marks

Min. Pass Marks: 8+ 32 marks

Unit 1 Basic concepts in foods and nutrition

05

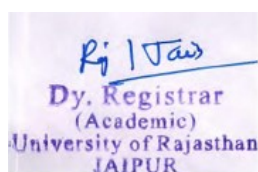
- Basic terms used in study of foods and nutrition
- Understanding relationship between foods, nutrition and health
- Functions of food-Physiological, psychological and social

Unit 2 Nutrients

20

Functions, dietary sources and clinical manifestations of deficiency/ excess of the following nutrients:

- Carbohydrates, lipids and proteins



- Fat soluble vitamins-A, D, E and K
- Water soluble vitamins – thiamin, riboflavin, niacin, pyridoxine, folate, vitamin B12 and vitamin C
- Minerals – calcium, iron and iodine

Unit 3 Food Groups

25

Selection, nutritional contribution and changes during cooking of the following food groups:

- Cereals
- Pulses
- Fruits and vegetables
- Milk & milk products
- Eggs
- Meat, poultry and fish
- Fats and Oils

Unit 4 Methods of Cooking and Preventing Nutrient Losses

10

- Dry, moist, frying and microwave cooking
- Advantages, disadvantages and the effect of various methods of cooking on nutrients
- Minimising nutrient losses

Suggested books and reference including links to e-resources –

- Bamji MS, Krishnaswamy K, Brahmam GNV (2009). Textbook of Human Nutrition, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd.
- Chadha R and Mathur P (eds). Nutrition: A Lifecycle Approach. Orient Blackswan, Delhi. 2015
- Srilakshmi (2018). Food Science, 7th Edition. New Age International Ltd.
- Srilakshmi (2019). Dietetics, 8th Edition. New Age International Ltd.
- Wardlaw and Insel MG, Insel PM (2004). Perspectives in Nutrition, Sixth Edition. Mosby.
- https://www.who.int/health-topics/nutrition#tab=tab_1
- <https://www.who.int/news-room/fact-sheets/detail/anaemia>
- <https://www.who.int/news-room/fact-sheets/detail/healthy-diet>
- <https://www.who.int/news-room/fact-sheets/detail/malnutrition>
- <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight>

- <https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=NuAs6SreCGryddEfs4kKBA==>
- <https://egyankosh.ac.in/handle/123456789/44151>
- <https://egyankosh.ac.in/handle/123456789/32947>
- <https://egyankosh.ac.in/handle/123456789/11137>
- <http://ecoursesonline.iasri.res.in/course/view.php?id=131>

Learning Outcome of the Course –

- Learners will be able to identify the respective nutrients in relation to various foods and food groups.
- Learners will be able to identify the clinical manifestations of excess/deficiency of various nutrients.
- Learners will be able to plan nutrient rich recipes based on principles of cooking methods.

HSC-52P 158- Fundamentals of Nutrition and Food Science

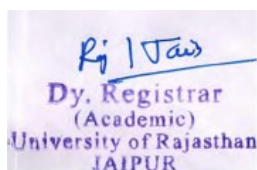
Practical Credit -2

30 Practicals (2 hours each)

Max. Marks: 10 + 40 marks

Min. Pass Marks: 4+ 16 marks

- 1) Weights and measures; preparing market order and table setting
- 2) Food preparation, understanding the principles involved, nutritional quality and portion size
 - Beverages: Hot tea/coffee, Milk shake/ lassi, fruit based beverages - 3
 - Cereals: Boiled rice, pulao, chapatti, parantha, puri, pastas - 3
 - Pulses: Whole, dehusked - 3
 - Vegetables: curries, dry preparations - 3
 - Milk and milk products - 3
 - Egg preparations: Boiled, poached, fried, scrambled, omelettes, egg pudding - 2
 - Soups: Broth, plain and cream soups, stocks - 3
 - Baked products: Biscuits/cookies, cream cakes, sponge cake preparations, tarts and pies - 3
 - Snacks: pakoras, cutlets, samosas, upma, poha, sandwiches, pizza - 3
 - Salads: salads and salad dressings. - 2



Scheme of Examination –

- Practical exam (total 50 marks)
- Midterm: 10 marks
- Planning of two recipes: 20 marks
- Preparation of two recipes: 20 marks

Suggested books and reference including links to e-resources –

- Khanna K, Gupta S, Seth R, Mahna R, Rekhi T (2004). The Art and Science of Cooking: A Practical Manual, Revised Edition. Elite Publishing House Pvt Ltd.
- Raina U, Kashyap S, Narula V, Thomas S, Suvira, Vir S, Chopra S (2010). Basic Food Preparation: A Complete Manual, Fourth Edition. Orient Black Swan Ltd.
- <http://ecoursesonline.iasri.res.in/course/view.php?id=184>
- <http://ecoursesonline.iasri.res.in/mod/page/view.php?id=19593>
- <http://ecoursesonline.iasri.res.in/mod/page/view.php?id=19575>

Learning Outcome of the Course –

- Learners will be able to plan recipes with accurately weighed ingredients.
- Learners will be able to set table correctly for various meals and courses.
- Learners will be able to prepare food recipes based on principles of cooking methods with specific portion sizes and nutritional compositions.

CORE COURSE V

Code of the Course	Title of the Course	Level of Course	Credits of course
HSC-52T 159	Foundation of Human Development	5	4
HSC-52P 160	Foundation of Human Development	5	2
Type of Course		Delivery Type of the Course	
Major Course		Theory- Lecture, Sixty Lecture including diagnostic and formative assessments - during lecture hours Practical- Laboratory work and field visits.	
Prerequisites	Central Board of Secondary Education or equivalent.		
Objectives of the Course (Theory)	<ul style="list-style-type: none"> ● To learn about areas and importance of Human Development. ● To develop insight of different developmental stage with respective growth and development so as to deal with development challenges. ● Understanding Development Psychology for academics, research and vocation. 		
Objectives of the Course (Practical)	<ul style="list-style-type: none"> ● Hands on experience for neonatal care. ● Skills development regarding care of neonates and infants. ● Preparation of effective teaching material. 		

HSC-52T 159- Foundation of Human Development**Theory Credit -4****60 Hours****Max. Marks: 20 + 80 marks****Min. Pass Marks: 8+ 32 marks****Unit I Understanding Human Development****15**

- Historical perspective of Human Development (Brief)
- Definitions, scope and multidisciplinary nature of Human Development
- Principles of Growth and Development, Factor affecting Growth and Development.

Unit II Prenatal Development and Birth**15**

- Stages and domains in life Span development
- Developmental tasks/ Milestones across life span
- Conception, Stages of Prenatal Development, prenatal assessment, Birth and birth process, complication and managements

Unit – III Neonatal Care**15**

- Introduction to neonatal care: definition, concept and principles of neonatal care
- Risk factors for neonates at anti-natal and intra-natal periods.
- Family centric care – communicating with parents, family and health care team.

Unit – IV Assessment and Challenges

15

- Assessment of Neonate (APGAR, Reflexes)
- Common ailments during neonatal stage
- Care of new born: Immediate and daily care, home care, kangaroo care, Neonatal feeding
- Impact of child birth on mother's overall well being

Suggested books and reference including links to e-resources –

- Berk, L. E. (2007). Development through the lifespan. Delhi: Pearson Education.
- Craig, Dunn, 2010. Understanding Human Development second edition. <https://www.scribd.com/document/471781703/Understanding-human-development-2nd-ed-pdf>
- <https://tnou.ac.in/wp-content/uploads/2021/06/SED-11-Human-Growth-and-Development-English.pdf>
- Rice. F. P. (1998). Human Development: A lifespan approach. New Jersey: Prentice
- Santrock, J. W. (2007). A topical approach to life-span development. New Delhi: Tata McGraw- Hill. <http://www.mim.ac.mw/books/John%20W.%20Santrock%20-%20Life-span%20Development%2013th%20Edition.pdf>
- Singh, A. (Ed). 2015. Foundations of Human Development: A life span approach. New Delhi: Orient BlackSwan.
- <https://ncert.nic.in/textbook/pdf/kepy104.pdf>

Learning Outcome of the Course –

- Understanding of the biological, psychological, social and cultural influences of lifespan human development.
- Understanding of how gender, ethnicity, class, historical periods and social setup relate to the life span experience.
- Understand and work effectively with a diversity of individuals and communities.

HSC-52P 160- Foundation of Human Development

Practical Credit -2

30 Practicals (2 hours each)

Max. Marks: 10 + 40 marks

Min. Pass Marks: 4+ 16 marks

1. Plan and develop activities to facilitate development in different domains - 10
2. Use of secondary sources to understand the depiction of children - 03
3. Observe and Assess Indian Infants (APGAR Scale and Reflexes) - 04
4. Visit and present experience of observation at Maternal Hospital, Schools (Nursery, Crèche, Anganwadi,) - 03
5. Prepare and present effective Teaching learning material (AV, Electronic, and Print) on different aspects of Human Development. - 10

Scheme of Examination –

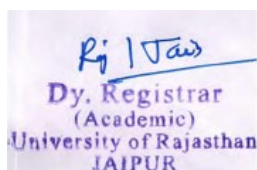
- Midterm: 10 marks
- Planning of one activities with TLM: 25 marks
- Minor excise (Any 2) 15 marks
 - i. APGAR Scale
 - ii. Reflexes
 - iii. Report of visits
 - iv. secondary sources to understand the depiction of children

Suggested books and reference including links to e-resources –

- Berk, L. E. (2007). Development through the lifespan. Delhi: Pearson Education.
- Santrock, J. W. (2007). A topical approach to life-span development. New Delhi: Tata. a. McGraw- Hill.
- <https://seciss.facmed.unam.mx/wp-content/uploads/2021/02/Cloherty-and-Starks-Manual-of-Neonatal-Care-2021-.pdf>
- <https://dl.uswr.ac.ir/bitstream/Hannan/140636/1/9781405178747.pdf>
- <https://tnou.ac.in/wp-content/uploads/2021/06/SED-11-Human-Growth-and-Development-English.pdf>

Learning Outcome of the Course –

- The students will be able to understand about different development Domains during life span with characteristics.
- The students will be capable to deal with age related challenges and its solutions.
- The students will be cable of better intra and inter personal relationship.



CORE COURSE VI

Code of the Course	Title of the Course	Level of Course	Credits of course
HSC-52T 161	Fundamentals of Textiles	5	4
HSC-52P 162	Fundamentals of Textiles	5	2
Type of Course		Delivery Type of the Course	
Major Course		Theory- Lecture, Sixty Lecture including diagnostic and formative assessments - during lecture hours Practical- Laboratory work and field visits.	
Prerequisites	Central Board of Secondary Education or equivalent.		
Objectives of the Course (Theory)	<ul style="list-style-type: none"> ● To impart the knowledge of textiles fibers and yarns in terms of their production, properties and application. ● To equip the students with an in-depth information regarding the various fabric Construction. ● To provide comprehensive knowledge about the concepts of dyeing, printing and finishing of textiles. ● To impart basic pattern making knowledge. 		
Objectives of the Course (Practical)	<ul style="list-style-type: none"> ● To understand physical aspects of fiber, yarn and fabric ● To learn various techniques of tie and dye ● To learn basic sewing processes of clothing ● To learn drafting of basic child's block and adapt to Frock 		

HSC-52T 161- Fundamentals of Textiles**Theory Credit -4****60 Hours****Max. Marks: 20 + 80 marks****Min. Pass Marks: 8+ 32 marks****Unit 1 Textile fibres and their properties****16**

- Primary and secondary properties of textile fibres with reference to their effect on fibre characteristics
- Molecular structure of fibres
- Classification of fibres
- Origin, production and properties of various fibres: Natural-cotton, linen, wool, silk. Man-made-rayon, polyester, polyamide (nylon 6,6) acrylics, elastomeric fibres

- Basic principle of yarn making: Mechanical spinning (cotton system, wool system, worsted system), Chemical spinning (wet, dry and melt)
- Types of yarns: Staple, Filament, Simple, complex
- Properties of yarns: Yarn numbering systems and twist

Unit 2 Fabric construction **14**

- Weaving: Parts and functions of the loom
- Weaves : Classification, construction, characteristics and usage
- Knitting: Classification, construction, characteristics and usage
- Non-woven and felts-construction, properties and usage

Unit 3 Dyeing and Printing **18**

Dyeing

- Classification and properties of dyes: Natural and Synthetic dyes
- Stages of dyeing – fiber dyeing, yarn dyeing, fabric dyeing and garment dyeing

Printing

- Methods of Printing – Block, Screen, Stencil, Roller and Rotary
- Styles of Printing – Direct, Discharge and Resist

UNIT 4 Finishing **12**

- Definition and importance of finishing
- Classification of finishes
- Preparatory Process – Desizing , Scouring, Bleaching, Tentering
- Mechanical finishes – Sizing, Singeing, Mercerization, Napping, Embossing, Calendaring.
- Functional finishes – Wrinkle resistant, Water- resistant and repellent, Flame Retardant, Soil Repellent, Mothproof and Anti-static.

Suggested books and reference including links to e-resources –

- Amaden Gewford, Fairchild Fashion Draping, Connje publication, Inc 2005.
- Corbman, P.B., (1985) Textiles- Fiber to Fabric (6th Edition), Gregg Division/McGraw Hill Book Co., US.
- Helen Joseph-Pattern Making for Fashion Design, Armstrong Pearson Education, Delhi, 2000.

- Hilary Campbell, Designing Patterns, Om Book services, New Delhi, 2003.
- Joseph, M.L., (1988) Essentials of Textiles (6th Edition), Holt, Rinehart and Winston Inc., Florida.
- Liechty, E.G., Potterberg, D.N., Rasband, J.A., 2010, Fitting and Pattern Alteration: A Multimethod Approach, Fairchild Publications, New York.
- Sandra Betzina, Fast Fit, the Taunton press, Inc New York London, 2003.
- Sekhri S., (2013) Textbook of Fabric Science: Fundamentals to Finishing, PHI Learning, Delhi.
- Tortora, G. Phyllis, Understanding Textiles, McMillan Co. USA.
- Vilensky G., (1983) Textile Science, CBS Publishers and Distributors, Delhi.
- Zarapkar K.R, System of Cutting, Navneet Publications, India, 2005.
- <https://www.fitnyc.edu/library/>
- www.textileschool.com
- www.textilelearner.net

Learning Outcome of the Course –

- Students will be able to describe textile fibers in terms of their production and properties.
- Students will be able to understand various production techniques and properties of yarns.
- Students will be able to develop understanding about fabrics, production techniques, properties and uses.
- Students will be able to understand the basic dyeing, printing and finishing techniques.
- Students will be able to understand pattern making.

HSC-52P 162- Fundamentals of Textiles

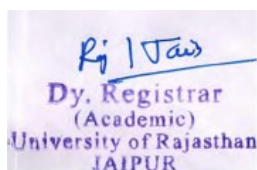
Practical Credit -2

30 Practicals (2 hours each)

Max. Marks: 10 + 40 marks

Min. Pass Marks: 4+ 16 marks

- 1) Fiber Identification tests –Visual, burning, microscopic and chemical. **14**
- 2) Yarn Identification – Single, ply, cord, textured, elastic, monofilament, multifilament and spun yarn.
- 3) Fabric Analysis: Thread count and balance.



- 4) Dimensional stability.
- 5) Crease Recovery
- 6) Colour fastness
- 7) Weaves- Identification of plain, twill and satin
- 8) Tie and Dye: Different methods.

Development of any two products using above techniques: 10

- Table linens (table cloth, mats and napkins)
- Furnishings (Curtains, cushion covers, diwan set)
- Wall pieces
- Scarves, Dupattas
- Blouse pieces
- Bags
- Purses

Preparation of scrap book showing 06

- Fibers
- Yarns
- Fabric construction methods
- Technical textiles
- Dyed & printed textiles

Scheme of Examination-

Midterm: 10 marks

Major: 25 marks

Textile Identification and Analysis: Identify fibres (visual, burning, microscopic, chemical)/differentiate yarn types (single, ply, cord, textured, etc.)/ fabric analysis (thread count and balance, dimensional stability, crease recovery, colour fastness).

Minor: 15 marks

Identify weave types (plain, twill, stain).

Tie and dye one sample using two colours.

Development of product (Table linens, Furnishings, Wall pieces, Scarves, Dupattas, Blouse pieces, Bags, Purses)

Suggested books and reference including links to e-resources –

- Chanchal, Arora, C., Chopra, S. and Rastogi, D., *Textile science: a practical manual*, Elite Publishing House Pvt Ltd.
- Mary Mathews, *Practical Clothing Construction, Part- II. Designing, Drafting and Tailoring-* Bhattarams Reprographics (P) Ltd., Chennai, 1991.
- <https://egyankosh.ac.in/handle/123456789/16758>

- www.elearning.nift.ac.in)
- www.textileassociationindia.org
- www.textilelearner.net

Learning Outcome of the Course –

- The students will be able to identify various properties of fiber, yarn and fabric
- Students will be able to do surface ornamentation by tie and dye method
- They will be able to develop skill in basic stitching processes and in construction of A line frock



University of Rajasthan

Jaipur

SYLLABUS

(Three/Four Year Under Graduate Programme)

B.Sc. -Home Science III & IV
Semester Examination-2024-25

Structure of Four Year's Bachelor of Science (Home Science)

PROGRAMME CODE – UG0808

Programme Faculty – Science

Programme Name-Four Year Bachelor of Science (Home-Science)

SEMESTER-III

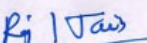
Course Code	Course Title	Course Type	L	T	P	Credit
HSC 63T 251	Entrepreneurship Management	Discipline Centric Core (Major)	4	0	0	4
HSC 63P 252	Entrepreneurship Management Practical	Discipline Centric Core (Major)	0	0	2	2
HSC 63T 253	Life Span Development (Theory)	Discipline Centric Core (Major)	4	0	0	4
HSC 63P 254	Life Span Development (Practical)	Discipline Centric Core (Major)	0	0	2	2
HSC 63T 255	Nutrition for the Family	Discipline Centric Core (Major/Minor)	4	0	0	4
HSC 63P 256	Nutrition for the Family Practical	Discipline Centric Core (Major/Minor)	0	0	2	2
MDC		Multidisciplinary course (other faculty)	4			4
SEC 3		Skill Enhancement Course	2			2
VAC 3		Value Added Course				2
		Total Credit				26

SEMESTER-IV

Course Code	Course Title	Course Type	L	T	P	Credit
HSC 64T 257	Public Health Nutrition	Discipline Centric Core (Major)	4	0	0	4
HSC 64P 258	Public Health Nutrition Preactical	Discipline Centric Core (Major)	0	0	2	2
HSC 64T 259	Elementary Design in Houseing	Discipline Centric Core (Major)	4	0	0	4
HSC 64P 260	Elementary Design in Houseing Preactical	Discipline Centric Core (Major)	0	0	2	2
HSC 64T 261	Teaching and Learning in Extension	Discipline Centric Core (Major/Minor)	4	0	0	4
HSC 64P 262	Teaching and Learning in Extension Practical	Discipline Centric Core (Major/Minor)	0	0	2	2
MDC		Multidisciplinary course (other faculty)	4			4
SEC 3		Skill Enhancement Course	2			2
VAC 3		Value Added Course				2
		Total Credit				26

SEMESTER-III

Course Code	Course Title	Course Type	L	T	P	Credit
HSC 63T 251	Entrepreneurship Management	Discipline Centric Core (Major)	4	0	0	4
HSC 63P 252	Entrepreneurship Management Practical	Discipline Centric Core (Major)	0	0	2	2
HSC 63T 253	Life Span Development (Theory)	Discipline Centric Core (Major)	4	0	0	4
HSC 63P 254	Life Span Development (Practical)	Discipline Centric Core (Major)	0	0	2	2
HSC 63T 255	Nutrition for the Family	Discipline Centric Core (Major/Minor)	4	0	0	4
HSC 63P 256	Nutrition for the Family Practical	Discipline Centric Core (Major/Minor)	0	0	2	2
MDC		Multidisciplinary course (other faculty)	4			4
SEC 3		Skill Enhancement Course	2			2
VAC 3		Value Added Course				2
		Total Credit				26


 Dy. Registrar
 (Academic)
 University of Rajasthan
 JAIPUR

SEMESTER – III
CORE COURSE VII

Code of the Course	Title of the Course	Level of Course	Credits of course
HSC 63T 251	Entrepreneurship Management	6	4
HSC 63P 252	Entrepreneurship Management	6	2
Type of Course		Delivery Type of the Course	
Major Course		Theory- Lecture, Sixty Lecture including diagnostic and formative assessments - during lecture hours Practical- Laboratory work and field visits.	
Course Outcome (Theory)	<ul style="list-style-type: none"> • Comprehend with nuances of entrepreneurship • Sensitize students and help them to understand the establishment and management of an enterprise • Gain knowledge on Governmental plans and programs • Ignite / kindle aspirations to become entrepreneurs and successful managers • Motivate students to look at entrepreneurship as a viable and preferred career and emerge as job givers 		
Course Outcome (Practical)	<ul style="list-style-type: none"> • To develop skills in using SWOT analysis for case study of successful entrepreneurs and enterprises • To develop skill in preparation of tools for survey/study of entrepreneurship development institutions • To make them understand the activities and functions of an enterprise/ institutions & entrepreneurs by first hand exposure through visits and interactions programmes • To develop skills in planning and preparation of a project proposals 		

HSC 63T 251- Entrepreneurship Management

Theory Credit -4

60 Hours

Max. Marks: 20 + 80 marks

Min. Pass Marks: 8+ 32 marks

Unit-I. Concept of Entrepreneurship-

14

- Entrepreneurship - meaning, definition and scope of entrepreneurship.
- Entrepreneur- meaning, qualities, functions and types of entrepreneurs.
- Enterprise – Definition, nature and classification (capital, product, location, ownership pattern).
- Forms of Organization – Sole proprietorship, partnership, Joint Stock Company
Role of entrepreneur in economic development.



- Challenges faced by women entrepreneur.

Unit-II. Establishing a Small-Scale Enterprise- 16

- Establishing a small-scale Enterprise – product identification and product selection, Infrastructure – location, land, building, water and power
- Accounting: - meaning, need and objectives of accounting
- Process of Accounting, book -keeping, journal, ledger and balance sheet, final accounts
- Management of enterprise- production, financial, marketing, legal, resources

Unit-III. Institutional Support- 14

Institutional support by central and state level institutions: **-objective and functions**

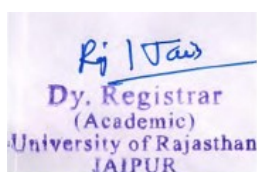
- Central level-
 - i. Commercial Bank
 - ii. SSIB – Small scale Industries Board
 - iii. NSIC – National Small Industries Corporation
 - iv. SIDO – Small Industries Development Organization
 - v. KVIC – Khadi and Village Industries Commission
 - vi. NIESBUD – National Institute for Entrepreneurship and Small Business Development NABARD – National Bank for Agricultural and Rural Development
- State Level-
 - i. DIC – District Industrial Center
 - ii. SFC – State Finance Corporations
 - iii. SSIDC – State Industrial Development Corporation
 - iv. SIDBI – Small Scale Industrial Development of India
 - v. SISI – Small Industries Service Institutes
 - vi. ICICI – Industrial Credit Investment Corporation of India

Unit-IV. Project Formulation- 16

- Project- Meaning and definition of project
- Project formulation techniques – Quantifiable and Non quantifiable projects, Sectoral project, Techno economic project
- Project report and preparation of project report
- Project appraisal – market feasibility, technical feasibility, financial and economic feasibility.

Suggested books and reference including links to e-resources –

- Anilkumar, S. Poornima S.C. Mini K. Abraham and Jayashree, K. (2012). Entrepreneurship Development. New Delhi: New Age International Pvt. Ltd., Publishers



- Entrepreneurial Neighborhoods by Maarten van Ham
- Entrepreneurship As Organizing by William B. Gartner
- Entrepreneurship development & communication skills by R.R. chole, P.S. Kapse P.K. Deshmukh Scientific Publicaiton.
- Jayashree Suresh. (2016). Entrepreneurial Development. Chennai:Margham Publication
- Paul, J. Kumar, N.J. and Mampilly, Paul J. Entrepreneurship development, Himalaya Publishing House, Mumbai, 1996.
- Radha, V. (2015). Entrepreneurial Development. Chennai: Prasanna Publishers
- Young, T. L. Implementing Project, Sterling Publishers Pvt. Ltd., New Delhi, 1998.
- https://sist.sathyabama.ac.in/sist_coursematerial/uploads/SBAA1603.pdf

Learning Outcome of the Course –

- Understood the concept, process and significance of entrepreneurship development
- Understood the essentials of establishment of an enterprise
- Learned planning and management of an enterprise
- Understood the characteristics, challenges faced by entrepreneur and their role in development
- Analysed the steps in product selection and form of ownership
- Learned effective accounting processes

HSC 63P 252- Entrepreneurship Management

Practical Credit -2

30 Practicals (2 hours each)

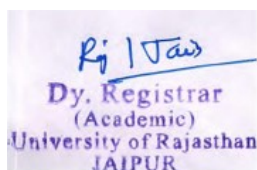
Max. Marks: 10 + 40 marks

Min. Pass Marks: 4+ 16 marks

- | | |
|---|----------|
| • SWOT analysis with respect to entrepreneurial competencies through case profiling of successful entrepreneurs and enterprises | 6 |
| • Survey of an institution facilitating entrepreneurship development (financial or other support) in India | 6 |
| • Interaction with influential personalities from institutions supporting entrepreneurship development | 3 |
| • Making reports and presentations of the practical no. 2 and 3 | 7 |
| • Preparation of model project proposal and report | 8 |

Practical exam scheme: (Total 50 marks: Midterm 10 + EoSE 40 = 50)

- Midterm marks- 10 marks
- Planning of a project proposal- 25 marks



- Making of a questionnaire for survey of an institution facilitating entrepreneurship development Or SWOT analysis of any one successful entrepreneur/Enterprise- 15 marks

Suggested books and reference including links to e-resources –

- Badi, R. V. and Badi N. V. (2011), Entrepreneurship. New Delhi: Vrinda Publications Pvt. Limited Distributors
- Gordon, E., and Natarajan, K. (2013), Entrepreneurship Development. Mumbai: Himalaya Publishing House
- Gundry Lisa K. & Kickul Jill R.,2007, Entrepreneurship Strategy: Changing Patterns in New Venture Creation, Growth, and Reinvention, SAGE Publications, Inc.
- Khanka, S.S. (2006). Entrepreneurial Development. New Delhi:S. Chand and Company Limited Publishers
- Robert, N.A. Hawkins, F. Kernelt, A. (2009). Accounting. New Delhi:Tata Me Graw – Hill Publishing Company Limited
- Sundara Pandian, P. (2002). Entrepreneurship Development. Virudhunagar: M.M. Publishers
- Taneja & Gupta, 2001, Entrepreneur Development- New Venture Creation, Galgotia Publishing Company
- Young, T. L. Planning Project, Sterling Publishers Pvt. Ltd., New Delhi, 1998.
- <https://www.techno-preneur.net/howto/index-howto.html>

Learning Outcome of the Course –

- Understand the concept of SWOT analysis by doing SWOT of entrepreneurs and enterprise
- Identify ways to approach supportive Institutions and Banks for starting an enterprise
- Analyze the steps in product selection and form of ownership
- Acquire skill in formation of project proposal
- Learn effective accounting processes

CORE COURSE VIII

Code of the Course	Title of the Course	Level of Course	Credits of course
HSC 63T 253	Life Span Development (Theory)	6	4
HSC 63P 254	Life Span Development (Practical)	6	2
Type of Course		Delivery Type of the Course	
Major Course		Theory- Lecture, Sixty Lecture including diagnostic and formative assessments - during lecture hours Practical- Laboratory work and field visits.	
Course Outcome (Theory)	<ul style="list-style-type: none"> To make aware about different stages of life span with their specific characteristics and challenges. To make understanding about requirement of individual at every stage of development. 		
Course Outcome (Practical)	<ul style="list-style-type: none"> To make students able to understand critical aspects of each life span stage with practical approach. To prepare students to interact with community and plan activities suitable for all. 		

HSC 63T 253- Life Span Development

Theory Credit -4

60 Hours

Max. Marks: 20 + 80 marks

Min. Pass Marks: 8+ 32 marks

Unit 1: Infancy and Early Childhood Years-

15

- Developmental tasks during Infancy and Early childhood Years
- Physical-motor development
- Cognitive and language development
- Socio-emotional development

Unit II: Middle Childhood Years and Adolescents-

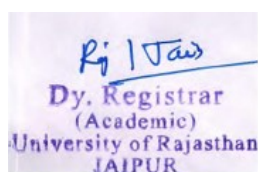
15

- Developmental tasks during Middle Childhood Years and Adolescents
- Physical-motor development
- Cognitive and language development
- Socio-emotional development; School, Peers and Media
- Moral development

Unit III: Young and Middle adulthood

15

- Developmental tasks during Young and Middle adulthood



- Transition from adolescence to adulthood
- Socio-emotional development; Relationships, Marriage and Parenting
- Cognition and creativity: Work, Vocation and leisure

Unit IV: Ageing

15

- Developmental tasks during ageing years
- Physical and psychological changes during ageing
- Diversity in roles and relationships
- Cultural perspective on ageing and death

Suggested books and reference including links to e-resources –

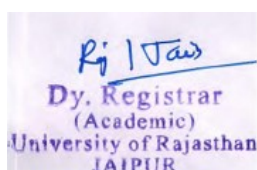
- Kail, R.V., and Cavanaugh, J.C. (2010) Human Development: A Life Span View Fifth Edition, Wadsworth Cengage Learning, US
- Lally M., Valentine S., (2019) Life Span Development: A Psychological Perspective, Second Edition
- Rice. F. P. (1998). Human Development: A lifespan approach. New Jersey: PrenticeHall.
- Rutter, M. and Rutter, M. (1992) Developing Minds. Challenge and continuity across the life span. London: Penguin.
- Santrock, J. W. (2007). A topical approach to life-span development. New Delhi: TataMcGraw- Hill.
- Sigelman C.K., and Rider E.A. (2009), life Span Human Development –Sixth Edition, Wadsworth Cengage Learning, US
- Singh, A. (Ed). 2015. Foundations of Human Development: A life span approach. New Delhi: Orient BlackSwan.
- Tennant, M. and Pogson, P. (1995) Learning and Change in the Adult Year, San Francisco: Jossey-Bass.

<http://dept.clcillinois.edu/psy/LifespanDevelopment.pdf>

Learning Outcome of the Course –

- The student will be able to deal, understand and make clear concept with demand of each and every stage of life span.
- The student will be able to predict and plan remedies for human being in any specific situation due to clear understanding of human beings.
- The students will be able to do working with NGOs, Counsellors and other professionals.

HSC 63P 254- Life Span Development



Practical Credit -2**30 Practical (2 hours each)****Max. Marks: 10 +40 marks****Min. Pass Marks: 4+ 16 marks**

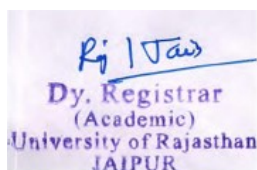
- | | | |
|----|---|---|
| 1. | Methods of human study and its application: | 5 |
| | <ul style="list-style-type: none"> • Checklist • Interview and Observation • Questionnaire • Case study • Sociometry | |
| 2. | Make a small video/documentary or literature on any developmental aspects of human being. | 5 |
| 3. | Plan and prepare developmentally appropriate Toys for infant and preschoolers | 5 |
| 4. | Depictions of adolescence and adulthood in media: Audio-visual, Print and Theatre | 5 |
| 5. | Planning a welfare program and Plan recreational activities for elderly people. | 5 |
| 6. | Visit and present report on Old Age Homes, Orphanage, NGOs (working on child and Women welfare). | 5 |

Practical exam scheme: (Total 50 marks: Midterm 10 + EoSE 40 = 50)

- Midterm marks- 10 marks
- Plan and prepare developmentally appropriate Toys for infant and preschoolers or Plan recreational activities for elderly people - 25 marks
- Methods of human study and its application: Checklist, Interview and Observation, Questionnaire, Case study, Sociometry or present report on Old Age Homes, Orphanage, NGOs (working on child and Women welfare) or planning of Audio-visual, Print and Theatre for adolescents and adulthood -15 marks

Suggested books and reference including links to e-resources –

- Kail, R.V., and Cavanaugh, J.C. (2010) Human Development: A Life Span View Fifth Edition, Wadsworth Cengage Learning, US
- Lally M., Valentine S., (2019) Life Span Development: A Psychological Perspective, Second Edition <http://dept.clcillinois.edu/psy/LifespanDevelopment.pdf>
- Rice. F. P. (1998). Human Development: A lifespan approach. New Jersey: PrenticeHall.
- Santrock, J. W. (2007). A topical approach to life-span development. New Delhi: TataMcGraw- Hill.
- Sigelman C.K., and Rider E.A. (2009), life Span Human Developmet –Sixth Edition, Wadsworth Cengage Learning, US



- Singh, A. (Ed). 2015. Foundations of Human Development: A life span approach. NewDelhi: Orient BlackSwan.

Learning Outcome of the Course –

- The student will be able to plan activities, toys for child in any educational aspects due to clear understanding of child development.
- The students will be able to planning a welfare programs for community specially for women, child and elderly.
- The students will be able to interact with children/adolescents and counsel them where needed.

CORE COURSE IX

Code of the Course	Title of the Course	Level of Course	Credits of course
HSC 63T 255	Nutrition for the Family	6	4
HSC 63P 256	Nutrition for the Family	6	2
Type of Course		Delivery Type of the Course	
Major Course		Theory- Lecture, Sixty Lecture including diagnostic and formative assessments - during lecture hours Practical- Laboratory work and field visits.	
Course Outcome (Theory)	<ul style="list-style-type: none"> • To understand the concept of meal planning and dietary guidelines. • To learn about the dietary management during various stages of life. • To learn about the nutritional concerns and its management during various stages of life. 		
Course Outcome(Practical)	<ul style="list-style-type: none"> • To understand the concept and use of food exchange list. • To learn planning and preparation of meals for various stages of life. 		

HSC 63T 255- Nutrition for the Family

Theory Credit -4

60 Hours

Max. Marks: 20 + 80 marks

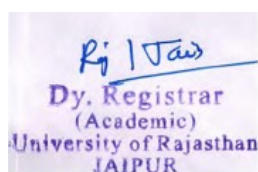
Min. Pass Marks: 8+ 32 marks

Unit- I. Basic concepts of meal planning-

16

- Food exchange list
- EAR and RDA
- Dietary guidelines for Indians and food pyramid (goals and guidelines in brief)
- Meal planning: objectives and principles

Unit- II. Nutrition during Pregnancy & Lactation-



- Nutrition during Pregnancy and Lactation: Physiological changes, RDA, nutritional guidelines and healthy food choices **8**

- Nutrition during Infancy: Importance of breastfeeding, Exclusive breastfeeding, early initiation, colostrum; importance, techniques and points to be considered for Complementary Feeding. **8**

- RDA, nutritional guidelines and healthy food choices during-
 - Preschool years
 - School years
 - Adolescence

Unit- IV. Nutrition during Adulthood & Old age-

- Nutrition during Adulthood: Concept of Dietary Reference Intakes; reference woman and man
7
- Geriatric Nutrition: Physiological changes during old age, RDA, nutritional guidelines, nutritional concerns, and healthy food choices
7

Suggested books and reference including links to e-resources –

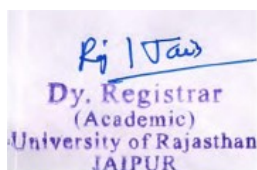
- Chadha R and Mathur P eds. Nutrition: A Lifecycle Approach. Orient Blackswan, New Delhi. 2015.
- Khanna K, Gupta S, Seth R, Passi SJ, Mahna R, Puri S (2013). Textbook of Nutrition and Dietetics. Phoenix Publishing House Pvt. Ltd.
- Longvah, T., Ananthan, R., Bhaskarachary, K and Venkaiah, K. 2017. Indian Food Composition Tables. National Institute of Nutrition, Hyderabad.
- Seth V and Singh K (2006). Diet Planning through the Life Cycle: Part 1 Normal Nutrition. A Practical Manual. Elite Publishing House Pvt. Ltd. New Delhi.
- Srilakshmi (2019). Dietetics, 8th Edition. New Age International Ltd.
- Wardlaw GM, Hampi JS, DiSilvestro RA (2004). Perspectives in Nutrition, 6th edition. McGraw Hill.

Learning Outcome of the Course –

- Learners will be able to plan meals based on principles of meal planning.
- Learners will be able to plan meals for various stages of life and conduct dietary management accordingly.

HSC 63P 256- Nutrition for the Family**Practical Credit -2****30 Practicals (2 hours each)****Max. Marks: 10 + 40 marks****Min. Pass Marks: 4+ 16 marks**

- Introduction to meal planning: Use of food exchange list.
- Meal Planning (as per RDA) and presentation of diets and dishes for-
 - Infants
 - Young Adult
 - Pregnant & Lactating
 - Preschool child
 - School age child and adolescents
 - Elderly
- Planning complimentary foods for Infants- Premixes and Home-made recipes.



Practical exam scheme: (Total 50 marks :Midterm 10+EoSE 40=50)

- Midterm marks: 10 marks
- Meal Planning and preparation of dish: 25 marks
- Planning of complimentary feed: 15 marks

Suggested books and reference including links:

- Srilakshmi (2019). Dietetics, 8th Edition. New Age International Ltd.
- <http://www.ifct2017.com/frame.php?page=home>
- <http://ecourseonline.iasri.res.in/mod/page/view.php?id=21429>

Learning Outcome of Course-

- Learners will be able to plan meals and prepare dishes based on dietary guidelines of every stage of life.
- Learners will be able to plan a dietary management for various stages of life.

SEMESTER-IV

Course Code	Course Title	Course Type	L	T	P	Credit
HSC 64T 257	Public Health Nutrition	Discipline Centric Core (Major)	4	0	0	4
HSC 64P 258	Public Health Nutrition Preactical	Discipline Centric Core (Major)	0	0	2	2
HSC 64T 259	Elementary Design in Houseing	Discipline Centric Core (Major)	4	0	0	4
HSC 64P 260	Elementary Design in Houseing Preactical	Discipline Centric Core (Major)	0	0	2	2
HSC 64T 261	Teaching and Learning in Extension	Discipline Centric Core (Major/Minor)	4	0	0	4
HSC 64P 262	Teaching and Learning in Extension Practical	Discipline Centric Core (Major/Minor)	0	0	2	2
MDC		Multidisciplinary course (other faculty)	4			4
SEC 3		Skill Enhancement Course	2			2
VAC 3		Value Added Course				2
		Total Credit				26

SEMESTER – IV
CORE COURSE X

Code of the Course	Title of the Course	Level of Course	Credits of course
HSC 64T 257	Public Health Nutrition	6	4
HSC 64P 258	Public Health Nutrition	6	2
Type of Course		Delivery Type of the Course	
Major		Theory- Lecture, Sixty Lecture including diagnostic and formative assessments - during lecture hours Practical- Laboratory work and field visits.	
Objectives of the Course (Theory)	<ul style="list-style-type: none"> To understand the concept of Public Health Nutrition. To learn about cause and prevention of various nutritional problems of the country. To learn about the assessment of nutritional status. 		
Objectives of the Course (Practical)	<ul style="list-style-type: none"> To enable learners to plan and develop low-cost recipes with specific nutritional needs, To enable learners to develop visual aids focusing on public health nutrition, To develop the skill of undertaking techniques of nutritional assessment, To enable students to conduct an effective public health nutrition awareness session. 		

HSC 64T 257- Public Health Nutrition

Theory Credit -4

60 Hours

Max. Marks: 20 + 80 marks

Min. Pass Marks: 8+ 32 marks

Unit I - Introduction to Public Health Nutrition

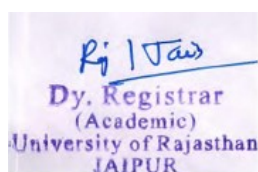
12

- Definition and concept of public health nutrition
- Importance and scope
- Role of public health nutritionist
- Health Care System of India
- Definitions of optimum health, malnutrition (under nutrition, overweight, obesity, micronutrient deficiency), nutritional status, nutrition intervention, food and nutrient supplements, nutrition education, morbidity, mortality rates, dual burden of malnutrition.

Unit II- Assessment of nutritional status

14

- Objectives and importance
- Methods of assessment



- a. Direct – clinical signs, nutritional anthropometry, biochemical tests, biophysical tests
- b. Indirect – Diet surveys, vital statistics

Unit III- Nutritional problems, their implications and related nutrition programmes: 18

- Etiology, prevalence, clinical features and preventive strategies of-
 - Protein energy malnutrition,
 - Nutritional anaemias,
 - Vitamin A deficiency,
 - Iodine deficiency disorders;

Unit IV- Initiatives and National, international and voluntary organizations to combat malnutrition: 16

- National Policies/ Strategies on Public Health and Nutrition (National Health Mission, Sustainable Development Goals, and other recent initiatives)
- International agencies of Public Health Nutrition importance- WHO, UNICEF, CARE, GAIN, WEP, UNDP etc.
- National Nutrition based Programmes
 - Integrated Child Development Services (ICDS) Scheme, Mid-day Meal Programme (MDMP), National programmes for prevention of Anaemia, Vitamin A deficiency, Iodine Deficiency Disorders

Suggested books and reference including links to e-resources –

- Bamji MS, Krishnaswamy K and Brahmam GNV (Eds) (2009). Textbook of Human Nutrition, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi.
- ICMR (1989) Nutritive Value of Indian Foods. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
- ICMR (2011) Dietary Guidelines for Indians – A Manual. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
- Jelliffe DB, Jelliffe ERP, Zerfas A and Neumann CG (1989). Community Nutritional Assessment with special reference to less technically developed countries. Oxford University Press. Oxford.
- Park K (2011). Park's Textbook of Preventive and Social Medicine, 21st Edition. M/s Banarasidas Bhanot Publishers, Jabalpur, India.
- Vir, S.C. 2010. Public Health Nutrition in Developing Countries, Part 1 & 2. Published by Wood head publishing India Pvt. Ltd., New Delhi, Cambridge, Oxford, Philadelphia.

- Wadhwa A and Sharma S (2003). Nutrition in the Community-A Textbook. Elite Publishing House Pvt. Ltd. New Delhi.
- World Health Organization (2006). WHO Child Growth Standards: Methods and development: Length/height-for-age, weight-for-age, weight-for-length, weight-for-height and body mass index-for-age (<http://www.who.int/childgrowth/standards/en/>).

Learning Outcome of the Course –

- Learners will be able to explain the meaning and importance of public health nutrition.
- Learners will be able to enlist the causative factors and characteristics of major nutritional problems of the country.
- Learners will be aware of the preventive strategies for major nutritional problems.
- Learners will be able to assess the nutritional status of a community using direct and indirect methods of assessment.

HSC 64P 258- Public Health Nutrition

Practical Credit -2

30 Practicals (2 hours each)

Max. Marks: 10 + 40 marks

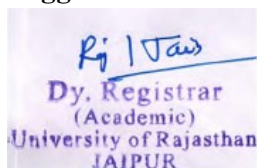
Min. Pass Marks: 4+ 16 marks

1. Planning of low-cost nutritious recipes for infants, pre-schoolers, pregnant/nursing mothers for nutrition education.
2. Assessment of nutritional status:
 - Anthropometry – weight and height measurements
 - Plotting and interpretation of growth charts for children below 5 years
 - Identification of clinical signs of common nutritional disorders
 - Dietary assessment – FFQ and 24-hour diet recall
3. Preparing visual aids on various issues of public health importance.
4. Planning and conducting a public health nutrition awareness session.

Practical exam scheme: (Total 50 marks: Midterm 10 + EoSE 40 = 50)

- Midterm : 10 marks
- Planning of and preparation of low-cost recipe: 25 marks
- Preparation of visual aid: 15 marks

Suggested books and reference including links to e-resources –



- Sehgal, Salil & Raghuvanshi, R.S. 2007. Textbook of Community Nutrition. Directorate of Information and Publications of Agriculture, Indian Council of Agricultural Research.
- Srilakshmi, B. (2019). Nutrition Science, 8th Edition. New Age International Ltd.
- <https://www.ifct2017.com/frame.php?page=home>
- <http://ecoursesonline.iasri.res.in/mod/page/view.php?id=21429>

Learning Outcome of the Course –

- Learners will be able to plan and prepare low-cost recipes based on specific nutritional requirements.
- Learners will be able to prepare attractive visual aids based on public health nutrition awareness.
- Learners will be able to assess the nutritional status in a community using direct and indirect methods of assessment.
- Learners will be able to plan and conduct an effective public health nutrition awareness session.

CORE COURSE XI

Code of the Course	Title of the Course	Level of Course	Credits of course
HSC 64T 259	Elementary Design in Housing	6	4
HSC 64P 260	Elementary Design in Housing	6	2
Type of Course		Delivery Type of the Course	
Major		Theory- Lecture, Sixty Lecture including diagnostic and formative assessments - during lecture hours Practical- Laboratory work and field visits.	
Objectives of the Course (Theory)	<ul style="list-style-type: none"> • To understand principles underlying house planning • To understand legal and financial aspects of house planning and purchasing • To understand different types and uses of finishes used in housing 		
Objectives of the Course (Practical)	<ul style="list-style-type: none"> • To understand and draw various housing symbols • To understand and analyze different forms of house plans • To prepare house plans for various categories 		

HSC 64T 259- Elementary Design in Housing

Theory Credit -4

60 Hours

Max. Marks: 20 + 80 marks

Min. Pass Marks: 8+ 32 marks

Unit-I: Family's Housing Needs

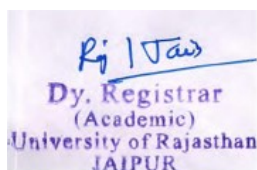
- Functions of Housing, Concept of life space
- Factors influencing site selection: vegetation, soil types, drainage, budget, ergonomics, contour, orientation etc.
- Types of Houses: tenement, apartment, duplex, row houses
- Principles of House Planning: aspect, prospect, ventilation, privacy, circulation, roominess, flexibility, grouping, furniture arrangement, sanitation, economy

Unit-II: Legal and Financial Aspects of Housing

- Legal considerations in purchasing plots, apartments, independent houses
- Understanding the process of house construction and acquisition
- Cost Estimation for Housing:
 - Breakdown of costs: land, building materials, labour, utilities
 - Budgeting and cost management in housing projects

Unit III: Residential Planning

- Components of building – wall roof, ceiling, functions and types



- Building Services and Room Planning: Electrical, water supply, and sanitary systems in buildings
- Importance and optimal planning for different rooms
- Kitchen: types, importance, working centers and triangle, and working heights
- Building material and finishes – types, advantages, and disadvantages

Unit IV: Residential Finishing and Green Technology

- Wall and ceiling space – Types of wall and ceilings, finishes used for walls, ceiling in interior and exterior
- Types of doors and windows
- Floor finishes for different areas, finishes for special effect
- Concept of Green Building. Eco friendly material and finishes used in green technology

Suggested books and reference including links to e-resources –

- Adams, S.T. (1981), How To Buy, Repair And Maintain Home Systems And Applications, ARCO Publications, New York.
- Agan Tessie (1986), The House Its Plan And Use, Oxford and IBH publishing company, New Delhi,
- Agan, Tessie (1951), The House Its Plan And Use, J.B. Lippincott New York.
- Broadbent G., Bunt R. & Charles Zencles, (1980), Sign, Symbol And Architecture, John Wiley & Sons, New York.
- Choudhary, R. (Editor) English Lettering and Alphabets, Gaurav Publishing House, New Delhi.
- Couran Terence (1974), The House Book, Mitchell Beazley Publications Ltd, London.
- Deshpande, R.S. (1995), Modern Ideal Homes For India, Deshpande Publication Trust, Puna.
- Deshpande (1991), Build Your Homes, United Book Corporation, Puna.
- Deshpande (1991), Modern Ideal Homes of India, united Book Corporation, Puna.
- E & OE. “ Planning – The Architects Handbook”
- Ferdrick, S. Merit (1981), Building Design and Construction and Handbook, New Delhi.
- Gill, Robert W. (1984), Rendering with Pen and Ink (2nd Edition), Themes and Hudson Ltd. London.
- Jones, Bridget (2000), Entertaining in Style, Annes Publishing Ltd., London.
- Joseph, D. Falcon, (1987), principles and practices of Residential Construction, Prentice Hall. New Jersey.
- Patani M., (2010), Home Management, Star Publication, Agra.
- Mills, Edward D. (Ed), (1985), Planning: The architects ‘Handbook, 10th Edition, Butlerworths.
- Millar, Max (1960), Know How To Draw, B.T. Batsford Ltd., London.

- Paltison Garden Day (1982), A Guide To Professional Architectural And Industrial Scale Model Building. Eagle Wood Cliffs, N.J. Prentice Hall.
- Peet L.J. and Arnold M.G., (1970), Household Equipment, John Wiley and Sons, New York.
- Raja Rao, T.N., Subranayan. Y, (2000), Planning of Residential Buildings, Standard Publisher, New Delhi
- Teemen L. (1974), How it works and how to give it. New American Library
- Gillat M. & Goldstein V. (1967), Art Everyday Life, Oxford & IBH publishing Co., New Delhi.
- Goldstein M. & Goldstein V. (1967), Art Everything Life, McGraw hill Books comp.Ltd., New York.

Learning Outcome of the Course –

- Students will be able to analyze housing needs based on family attributes
- Students will be able to apply principles of residential planning and design
- Students will be able to estimate costs for housing projects
- Students will be able to understand elementary design and finishes used in housing.

HSC 64P 260- Elementary Design in Housing

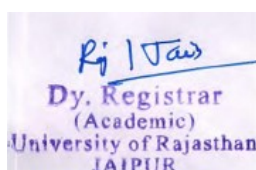
Practical Credit -2

30 Practicals (2 hours each)

Max. Marks: 10 + 40 marks

Min. Pass Marks: 4+ 16 marks

- Market survey on building materials cost
- Introduction to drawing equipment and rendering techniques
- Lettering and scale application introduction
- Furniture dimensions and architectural symbols drawing
- Drawing electricity symbols and architectural representations
- Collection and analysis of LIG, MIG, and HIG house plans:
 - Site plans,
 - Floor plans
 - Cross-section plan
 - Elevation plan and
 - Landscape plan
- House plan creation for
 - LIG
 - MIG and
 - HIG



2. Practical exam scheme: (Total 50 marks: Midterm 10 + EoSE 40 = 50)

- Midterm = 10 marks
- Major – House plan = 25 marks
- Minor any other = 15 marks

3. Suggested books and reference including links to e-resources –

- Allen, E., & Iano, J. (2012). The Architect's Studio Companion: Rules of Thumb for Preliminary Design.
- American Institute of Architects. (2007). Architectural Graphic Standards.
- Birkett, C. (2011). The Gift Wrapping Book.
- Ching, F. D. K., & Binggeli, C. (2012). Interior Design Illustrated.
- Dickinson, E. (2017). Envelope Poems.
- Pile, J. (2005). Color in Interior Design.
- Schlegel Whitman, K. (2009). Tablesapes: Setting the Table with Style.
- Spence, W. P. (2013). Construction Materials, Methods and Techniques.
- Stanyer, P. (2003). The Complete Book of Drawing Techniques: A Professional Guide for the Artist.
- Wilson, J. (1996). The Art of Decorative Paper Pricking.

Learning Outcome of the Course –

- Learners will learn about basics of residential planning and building materials.
- Learners will learn to demonstrate proficiency in drawing, electrical and architectural symbols.
- Learners will learn to analyze various house plans
- Learners will learn to create house plans for different categories.

CORE COURSE XII

Code of the Course	Title of the Course	Level of Course	Credits of course
HSC 64T 261	Teaching and Learning in Extension	6	4
HSC 64P 262	Teaching and Learning in Extension	6	2
Type of Course		Delivery Type of the Course	
Major		Theory- Lecture, Sixty Lecture including diagnostic and formative assessments - during lecture hours Practical- Laboratory work and field visits.	
Objectives of the Course (Theory)	<ul style="list-style-type: none"> • To acquaint students with the basic concepts and process of extension teaching and learning • To sensitize the students and help them to understand the importance of various extension teaching methods • To enable students, understand the importance, strategies for development and uses, advantages and limitations of audio-visual aids 		
Objectives of the Course (Practical)	<ul style="list-style-type: none"> • To develop skills in development of various audio-visual aids. • To develop skills in using audio-visual aids for effective learning and teaching • To develop skill in planning and execution of extension teaching methods 		

HSC 64T 261- Teaching and Learning in Extension

Theory Credit -4

60 Hours

Max. Marks: 20 + 80 marks

Min. Pass Marks: 8+ 32 marks

Unit 1: - Learning in Extension

18

- Learning- Concept, characteristics and principles of learning in extension. 5
- Types of learning 2
- Effective learning situation 2
- Factors affecting learning 2
- Transfer of learning in extension 3
- Adult Learning-Concepts, objectives, principles and characteristics of adult learners 4

Unit 2: - Extension Teaching.

14

- Extension teaching- Concept, Definition, and steps 4
- Factors effecting teaching 2
- Characteristics and principles of extension teaching 4
- Motivation- Concept, Types and Principles/techniques of Motivating people in 3



extension, Maslow theory of motivation	
• Teaching and learning through e- resources – Moocs /online Platform	1
Unit 3: - Teaching methods in Extension-	14
• Teaching methods in Extension – concept and Importance	2
• Classification of Methods (according to use, form, adopters categories)	2
• Purpose, Procedure, Advantages and Limitations of each teaching method	8
• Factors affecting in selection of teaching method	2
Unit: - 4: -Audio-Visual Aids	14
• Audio-Visual Aid- Concept and selection Criteria	2
• Classification of teaching aids (Audio, Visual and Audio –Visual and projected-non-projected)	2
• Concept, importance, uses, advantages and limitations of each teaching aid	9
• Cone of Experience	1
• Use of ICT in extension	

Suggested books and reference including links to e-resources –

- Dahama O.P. (1988) : Education and Communication for Development, Oxford and IBH Publishing Co. Pvt. Ltd. New –Delhi Hoboken, NJ: Wiley.
- [Fundamental of Ag. Ext. edr. By Sagar wondal, Kalyani Publication, New Delhi.](#)
- Home Science Higher Secondary First Year. (2005). Tamil Nadu Textbook Corporation.
- <http://ecoursesonline.iasri.res.in/mod/page/view.php?id=47234>
- <http://ecoursesonline.iasri.res.in/mod/resource/view.php?id=4374>
- https://nou.edu.ng/coursewarecontent/AEM%20302%20COURSE%20Material_0.pdf
- <https://www.egyankosh.ac.in/bitstream/123456789/59273/1/Unit2.pdf>
- <https://www.egyankosh.ac.in/bitstream/123456789/59274/1/Unit3.pdf>
- Laogu, E. A. (2005). Extension Teaching/Learning Process and Methods. In: S. F. Adedoyin (ed). Agricultural Extension in Nigeria. Publication of Agricultural Extension Society of Nigeria, pp – 202 -203.
- Onwubuya, E. A. (2005). Social and Educational Psychology in Extension. In: S.F. Adedoyin (d). Agricultural Extension in Nigeria. Publication of Agricultural Extension Society of Nigeria, pp. 126-127.
- Ray, G. L. (2017). Extension Communication and Management, Kalyani publications, New Delhi
- Reeve, J. (2015). Understanding motivation and emotion (6th ed.).
- Supe , S.V. (1997) An Introduction to Extension Education. Oxford IBH Publishing Co. Pvt. Ltd. , New-Delhi.

Learning Outcome of the Course –

- Understand the concept and process of extension teaching and learning
- Describe the procedure for effective teaching in extension work
- Understand the implication of teaching and learning in extension
- Explain how transfer of learning takes place in extension
- Understand the essentials in adult learning
- Describe how to motivate village people and extension worker

HSC 64P 262- Teaching and Learning in Extension

Practical Credit -2

30 Practicals (2 hours each)

Max. Marks: 10 + 40 marks

Min. Pass Marks: 4+ 16 marks

1. Development of skill in planning, preparation and use of following Audio -Visual aids (Any two): **(15)**

- Audio aids -10 minutes' speech/talk preparation and recording
- Visual aids -Chart/ Poster/ Power points presentation/presentation of pictures/photos as visual aids in the form of story or collage
- Audio- Visual aid-short video development

2. Development of skills in planning and use of extension teaching methods (any three) **(15)**

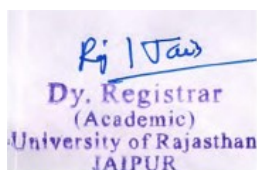
- Demonstration,
- Drama
- Role play
- Puppetry
- FGD

Practical exam scheme: (Total 50 marks: Midterm 10 + EoSE 40 = 50)

- Midterm = 10 marks
- Planning and execution of any one teaching method- 25 marks
- Preparation of an Audio/Visual/Audio- Visual Aid: 15 marks

Suggested books and reference including links to e-resources –

- Dahama O.P. (1988) : Education and Communication for Development, Oxford and IBH Publishing Co. Pvt. Ltd. New –Delhi



- Modi Bella: Designing Message for Development Communication and Audience Participation- Based Approach, Sage Publications, New Delhi, 1991.
- <https://www.egyankosh.ac.in/bitstream/123456789/59273/1/Unit2.pdf>
- <http://ecoursesonline.iasri.res.in/mod/resource/view.php?id=4374>
- <http://ecoursesonline.iasri.res.in/mod/page/view.php?id=47234>
- [https://monad.edu.in/img/media/uploads/Audio%20on%20Visual%20Aids%20\(BSCAG-415\)\(U-1,P-3\).pdf](https://monad.edu.in/img/media/uploads/Audio%20on%20Visual%20Aids%20(BSCAG-415)(U-1,P-3).pdf)
- <https://extension.oregonstate.edu/sites/default/files/documents/10551/preparingandusingvisualaids.pdf>

Learning Outcome of the Course –

- To acquire skill in planning, use and execution of extension teaching methods
- To acquire skill in use and preparation of visual aids
- To acquire skill in preparation of talks as audio-aids
- To acquire skill in making and use of audio-visual aids
- Students will be able to develop sides in planning, use & execute of extension teaching methods.