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#### <u>Department of Home Science</u> <u>Semester – VI</u>

**B.Sc.** (Prog.) Home Science

**Bachelor in B.Sc. Home Science (Prog.)** 

#### DISCIPLINE SPECIFIC CORE COURSE

DSC HP 616: Lifespan Development III: Development in Adulthood

#### CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title& Code	Credits	Credit distribution of the course			Eligibility criteria	Pre- requisite of the	
		Lecture	Tutorial	Practical/ Practice		course(if any)	
Lifespan Development III: Development in Adulthood	4	3	0	1	XII Pass	Appeared in DSC HP 410	

#### **Course description:**

Life span development, will equip aspiring students with theoretical perspectives and the, principles of development as well as the challenges during different stages of adulthood.

#### **Learning Objectives**

- To learn about the various changes that take place in the different domains of development during early, middle and late adulthood.
- To understand the theoretical perspectives on early, middle and late adulthood.
- To understand the influence of cultural contexts on development during adulthood.
- To learn about different techniques, tools of data collection and psychometric measurement.

#### **Learning Outcomes**

The students would be able to:

• The students will develop an understanding of the diverse changes that are experienced in different developmental domains during adulthood.

- Students will be able to apply theoretical perspectives in understanding adulthood.
- Students will be able to apply their understanding of development during adulthood to everyday life experiences.
- To understand how relationships evolve and are maintained through the lifespan.

#### **SYLLABUS OF DSC HP 616**

## THEORY (Credits 3; Hours 45)

#### **UNIT I: Early Adulthood**

20 Hours

Unit description: This unit will explain the stage of early adulthood and the various changes across different domains of development.

#### Subtopics:

- Transition from adolescence to adulthood; Developmental tasks of adulthood
- Theoretical Perspectives of early adulthood- Life cycle approach, Erikson, Sternberg and others.
- Physical and physiological changes
- Socio-emotional development: Relationships, Marriage, co-habitation and Parenting
- Cognition and creativity: Work, Vocation and leisure

#### **UNIT II: Middle Adulthood**

10 Hours

Unit description: This unit will explain the stage of middle adulthood and focus on the physical, physiological and socio-emotional changes specific to this stage Subtopics:

- Developmental tasks of middle adulthood
- Physical and physiological changes
- Socio-emotional development
- Diversity in roles and relationships
- Parenting in the current context

#### **UNIT III: Late Adulthood**

15 hours

Unit description: This unit will explain the stage of late adulthood and the challenges across the different domains of development.

#### Subtopics:

- Developmental tasks of late adulthood
- Physical and physiological changes and aging
- Socio-emotional development: Parenting and Grandparenting; Coping with the challenges of aging
- Work and Retirement
- Cultural Perspectives on aging, death and grief
- Meditation, spirituality and stress management

PRACTICAL (Credit 1; Hours 30)

UNIT 1 15 Hours

• Reviewing methods of data collection: Interview, Observation, Questionnaire, Case study

- To study physical and sexual changes in adulthood
- To study cognitive development and creativity during adulthood
- Case profile of an adult- including study of self, family relationships and peer relationships, challenges.
- Use of interview/questionnaire method to study adult roles (at least one male and female)
  - Father/husband
  - Home maker
  - Employed woman
  - Grandfather/Grandmother
  - Single parent
  - College-going young adults

UNIT 2 15 Hours

- Depictions of adolescence and adulthood stages in media: Audio-visual, Print and Theatre
- Familiarity with Psychological Tests of Intelligence and Personality- any three (WAIS-R, Ravens, TAT)
- Analysis of care-based apps for elderly

#### **Essential Readings:**

- Berk, L. E. (2007). Development through the Lifespan. Delhi, Pearson Education
- Papalia, D.E. and Martorell, G. (2015). Experience Human Development, McGraw-Hill Education
- Rice. F. P. (1998). Human Development: A lifespan approach. New Jersey: Prentice Hall.
- Santrock, J. W. (2007). A topical approach to life-span development. New Delhi: Tata McGraw-Hill.
- Santrock, J.W (2021). Life Span Development: Eighteenth edition. MC. Graw-Hill: New York.
- Singh, A. (Ed). (2015). Foundations of Human Development: A Life Span Approach. New Delhi: Orient Black Swan

- Harris, M. and Butterworth, G. (2002). Developmental Psychology: A Student's Handbook. Psychology Press.
- Hurlock, E. B. (1973). Adolescent Development. Mc Graw -Hill Education.
- Journal of Developmental Psychology
- Lefrancois, G.R. (1996). The Lifespan. Wadsworth Publishing Company.
- Rutter, M. and Rutter, M. (1992). Developing Minds. Challenge and continuity across the Life span. London: Penguin.
- Tennant, M. and Pogson, P. (1995) Learning and Change in the Adult Year, San Francisco: Jossey-Bass

#### DISCIPLINE SPECIFIC CORE COURSE

#### **DSC HP 617: Public Nutrition and Dietetics**

#### CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title& Code	Credits	Credit dis	stribution o	f the course	Eligibility criteria	Pre- requisite of the	
		Lecture	Tutorial	Practical/ Practice		course(if any)	
Public Nutrition and Dietetics	4	3	0	1	Pass in DSC HP 411	NIL	

#### **Learning Objectives**

- To elucidate the concept and scope of public nutrition.
- To apprise the relevance of assessing nutritional status and the various techniques for assessment of nutritional status.
- To familiarize with the common nutritional deficiencies of public health significance and their management and prevention.
- To understand the nutrition care process in disease management of a patient.
- To develop the skill of modifying normal diets into therapeutic diets for managing some diseases/ disorders.
- To understand the etiology, patho-physiology, metabolic changes, clinical symptoms and management of some common disorders / diseases.

#### **Learning Outcomes**

- Understand the concept of public nutrition and the multifaceted nature of nutritional problems.
- Comprehend the relevance of assessing nutritional status and various techniques for assessment of nutritional status.
- Knowledge of common nutritional deficiencies, their management, prevention and relevant national nutrition programmes.
- Understand the principle of diet therapy and the nutrition care process.
- Develop an ability to modify a normal diet for therapeutic purposes.
- An understanding of the etiology, patho-physiology, metabolic changes, clinical symptoms and management of some common disorders / diseases.

#### **SYLLABUS OF DSC HP 617**

#### **THEORY**

#### (Credits 3; Hours 45)

#### **UNIT I: Concept and scope of public nutrition**

3 Hours

- Health Concept, definition, dimensions, determinants and indicators
- Definition and multidisciplinary nature of public nutrition
- Concept, scope and current concerns in public nutrition
- Role of public health nutritionist

#### UNIT II: Assessment of nutritional status of individual and community 8 Hours

- Objectives and importance of assessment of nutritional status of individual and population groups
- Methods of Assessment of Nutritional status of Individual and Population groups
  - Anthropometry and related measures
  - Biochemical Assessment
  - Clinical Examination
  - Dietary Assessment
  - Vital Statistics, Ecological factors

# UNIT III: Prevalence, etiology, clinical features, prevention and management at community level of the following. 10 Hours

- Protein Energy Malnutrition, Moderate Acute Malnutrition, Severe Acute Malnutrition
- Micronutrient deficiencies such as Vitamin A deficiency, Nutritional anemia, Iodine deficiency disorders, Vitamin D deficiency and Zinc deficiency
- Fluorosis
- Obesity, Metabolic Syndrome and Non communicable disease- An overview

#### **UNIT IV: Introduction to Nutrition Care and Diet Therapy**

4 Hours

- Principles and basic concepts of diet therapy
- Nutrition Care Process (NCP)
- Therapeutic modifications of the normal diet

# UNIT V: Etiology, patho-physiology, metabolic changes, clinical symptoms and an anagement of some common disorders / diseases

- Febrile disorders- Typhoid, Tuberculosis, HIV-AIDS
- GI Tract disorders- Diarrhoea, Constipation, Lactose Intolerance, Celiac Disease
- Weight management- Underweight, Overweight and Obesity

# PRACTICAL (Credit 1; Hours 30)

#### I Assessment of nutritional status:

- Anthropometry (height, weight, Middle upper arm circumference, Waist circumference)
- Dietary Assessment Food frequency questionnaire ,24 hour dietary recall
- Review of nutritional status of population from National /Regional/ Nutrition Surveys

(NFHS, CNNS, etc)

#### II Planning and preparation of low cost nutritious diet/recipes for:

• Population groups vulnerable to nutritional deficiency diseases (Protein Energy Malnutrition,, Nutritional Anemia, Vitamin A deficiency)

#### III Planning and preparation of diets/dishes and snacks for:

• Individuals suffering from febrile disorders- Typhoid, Tuberculosis; GI Tract disorders- Diarrhea and Constipation; Weight management- Underweight, Overweight/ obesity

#### **Essential Readings:**

- Vir, S. (2023). Child, adolescent and women nutrition in India: Public Policies, programme and progress. KW Publishers, Daryaganj, New Delhi, India.
- Park, K. (2021). Park"s Textbook of Preventive and Social Medicine (26th ed.). Jabalpur, India: Banarasidas Bhanot Publishers.
- Seth, V. and Singh K. (eds.) (2021) Principles of Medical Nutrition Therapy for Positive Clinical Outcomes, 1<sup>st</sup> Edition. Elite Publishing House Pvt. Ltd.
- ICMR (2020) Estimated Average Requirements and Recommended Dietary Allowances for Indians .Published by National Institute of Nutrition, Hyderabad.
- Seth V, Singh K and Mathur P (2018). Diet Planning through the Life Cycle: Part 1 Normal Nutrition. A Practical Manual. 6 th Edn. Elite Publishing House Pvt. Ltd. New Delhi.
- Siddhu A, Bhatia N, Singh K, Gupta S (2017). Compilation of food exchange list, technical series 6, Lady Irwin College, University of Delhi. Publ. Global Books Organisation, Delhi
- Longvah T, Ananthan R, Bhaskarachary K and Venkaiah K (2017). Indian Food Composition Tables. National Institute of Nutrition, ICMR, Hyderabad.
- Kishore, J. (2016). National Health Programs of India (12th ed.). New Delhi, India:Century Publications.
- Wadhwa A and Sharma S (2003). Nutrition in the Community- A Textbook. Elite Publishing Pvt Ltd, New Delhi.
- Jelliffe DB & Jelliffe E F P (1989). Community nutritional assessment with special reference to less technically developed countries. Oxford Medical Publications. Oxford University Press, Oxford, UK.
- Policy on Control of Nutritional Anemia (1991). Ministry of family and health welfare. Government of India.

- Chadha R and Mathur P eds.(2015) Nutrition: A Lifecycle Approach. Orient Blackswan, New Delhi.
- Indian Dietetics Association, (2018) Clinical Dietetics Manual, 2nd Edition. Elite Publishing House Pvt. Ltd.
- Bamji, M. S., Krishnaswamy, K. & Brahmam, G. N. V. (Eds.). (2017). Textbook of Human Nutrition (4th ed.). New Delhi, India: Oxford and IBH Publishing Co. Pvt. Ltd.
- Gibney, M. J., Margetts, B. M., Kearney, J. M. & D. (Eds.). (2005). Public

- Health Nutrition. Oxford, UK: Blackwell Science.
- ICMR (2011) Dietary Guidelines for Indians. Published by National Institute of Nutrition, Hyderabad.
- Khanna K, Gupta S, Seth R, Passi SJ, Seth R, Mahna R, Puri S (2013). Textbook of Nutrition and Dietetics.2nd Edn. Phoenix Publishing House Pvt. Ltd.
- https://www.who.int/tools/child-growth-standards/standards. Assessed on March 2023
- National Nutrition Monitoring Bureau (India) | GHDx (healthdata.org)Assessed on March 2023
- WHO. Xerophthalmia and night blindness for the assessment of clinical vitamin A deficiency in individuals and populations. WHO/NMH/NHD/EPG/14.4. Geneva: World Health Organization; 2014 (http://apps.who.int/iris/bitstream/10665/133705/1/WHO\_NMH\_NHD\_EPG\_14.4\_eng.p df). Assessed on March 2023
- https://www.who.int/data/nutrition/nlis/info/vitamin-a-deficiency Assessed on March 2023
- <a href="https://www.nhm.gov.in/images/pdf/programmes/child-health/IEC-materials/PARTICIPANT-MANUAL FBCSA-Malnutrition.pdf">https://www.nhm.gov.in/images/pdf/programmes/child-health/IEC-materials/PARTICIPANT-MANUAL FBCSA-Malnutrition.pdf</a> Assessed on March 2023
- Comprehensive National Nutrition Survey(2016-18) reports https://www.unicef.org/india/media/2646/file/CNNS-report.pdf Assessed on March 2023
- WHO https://www.who.int/tools/child-growth-standards/standards. Assessed on March 2023
- WHO (2009) https://www.who.int/publications/i/item/9789241547635. Assessed on March 2023
- NRHM. Facility based care of SAM (2013) https://www.nhm.gov.in/images/pdf/programmes/child-health/IEC-materials/PARTICIPANT-MANUAL\_FBCSA-Malnutrition.pdf .Assessed on March 2023
- NFHS Project | International Institute for Population Sciences (IIPS) (iipsindia.ac.in)Assessed on March 2023

#### DISCIPLINE SPECIFIC CORE COURSE

#### **DSC HP 618: Sociology and Psychology for Home Science**

#### CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title& Code	Credits	Credit d	istribution	of the course	Eligibility criteria	Pre- requisite	
		Lecture	Tutorial	Practical/ Practice		of the course(if any)	
Sociology and Psychology for Home Science	4	2	0	2	XII Pass	NIL	

#### **Learning Objectives**

- To develop an understanding of the contributions of Sociology and Psychology to Home Science.
- To gain knowledge about various dimensions of social change, society and culture.
- To develop an understanding of the nature and foundations of Psychology.
- To appreciate the relevance of the Sociology and Psychology in everyday life.

#### **Learning Outcomes**

Students will be able to:

- Understand the nature of self, family, community and society.
- Gain awareness of the variations in family and social systems.
- Develop an understanding of Psychology and its basic concepts.
- Apply concepts of Sociology and Psychology in everyday life.

#### **SYLLABUS OF DSC HP 618**

THEORY (Credits 2; Hours 30)

#### PART A – Sociology (15 Hours)

#### **UNIT I: Introduction to Sociology**

7 Hours

This unit will introduce the students to basic concepts of social systems.

- Definitions and theoretical approaches in Sociology
- Social systems: Family, Community and Society

• Family in India: Structures, functions, variations and transition

#### **UNIT II: Communities and Social Groups**

8 Hours

This unit introduces the students to the concepts of communities, social groups and social inclusion and exclusion.

- Types of communities: rural, urban, tribal, and other variations
- Organization and role of social groups in communities and society
- Social Inclusion and Exclusion

#### PART B – Psychology (15 Hours)

#### **UNIT III: Introduction to Psychology**

8 Hours

This unit will help students to gain an insight into the basic concepts of Psychology.

- Key terms, definitions and concepts in Psychology
- Schools of thought in Psychology
- Theories of learning and perception

#### **UNIT IV: Psychology in everyday life**

7 Hours

This unit will help students to appreciate the application of Psychology in everyday life.

- Self, emotions, perception and behaviour
- Group dynamics
- Media and Psychology

# PRACTICAL (Credit 2; Hours 60)

#### PART A – Sociology

30 Hours

- 1. To study the structures and roles of families in diverse settings (social, cultural, economic and geographical variations)
- 2. To study local communities to understand social systems and dynamics (residential, slum, street, migrant).
- 3. Documenting everyday rituals, cultural practices and events: traditional art and craft, folk songs, attire, food
- 4. Audio visual resources to study changing social systems

#### PART B – Psychology

30 Hours

- 1. To prepare a scrapbook on relevant contemporary topics and issues in Psychology
- 2. Audio visual material to understand how human behaviour influences group dynamics and relationships
- 3. Survey on use and impact of popular social media
- 4. Workshops on any relevant theme: self, emotional regulation, mindfulness, counselling.

#### **Essential Readings:**

- Abraham, F. (2006). *Contemporary Sociology: An Introduction to concepts and Theories*. Oxford University Press.
- Anand, V., Balakrishnan, G., & George, P. (2018). *Community practices in India: Lessons from the grassroots*. Cambridge Scholars Publishing.
- Baron, R. A., Byrne, D., & Branscombe, N. R. (2006). *Social psychology* (11th ed.). Pearson Education.
- Beteille, Andre. (2009). Sociology: Essays in Approach and Method. Delhi: Oxford University Press.
- Ciccarelli, Saundra K., White, J. Noland & Misra, Girishwar. (2022). *Psychology* (6th ed.). Pearson India.
- Maguire, K. (2012). Stress and coping in Families. Wiley.
- Sachdeva, P., & Florence. D. (2020). Basic Sociology. Elite Publishing House.
- Shah, M. A. (2014). The Writings of A. M. Shah: The Household and Family in India. Orient Blackswan.

- Compas, B. E., Murphy, L. K., Yarboi, J., Gruhn, M. A., & Watson, K. H. (2019). Stress and coping in families. In B. H. Fiese, M. Celano, K. Deater-Deckard, E. N. Jouriles, & M. A. Whisman (Eds.), *APA handbook of contemporary family psychology: Foundations, methods, and contemporary issues across the lifespan* (pp. 37–55). American Psychological Association. https://doi.org/10.1037/0000099-003.
- Hochschild, A. (2013). So how's the Family? And other Essays. University of California Press.
- Madan, T. N. & Das, Veena. (2003). *The Oxford India companion to sociology and social anthropology*. Oxford University Press
- Passer, M.W. & Smith, R.E. (2010). *Psychology: The science of mind and behaviour*. Tata McGraw-Hill.

# DISCIPLINE SPECIFIC ELECTIVE DSE HS 6-1: Research Methods in Home Science

#### CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit d	listribution	of the course	Eligibility criteria	Pre-requisite of the Course (if any)
Code		Lecture	Tutorial	Practical/ Practice		
Research Methods in Home Science	4	3	0	1	NIL	NIL

#### **Learning Objectives**

- To provide students understandings about the basic concepts, approaches and methods in conducting Home Science research.
- To enable learners to appreciate and critique the nuances of designing a research study well.
- To sensitize students towards ethical concerns while conducting Home Science research.

#### **Learning Outcomes**

- Demonstrate knowledge of the scientific method, purpose and approaches to research in Home Science
- Compare and contrast quantitative and qualitative research approaches
- Explain different types of research design and their applicability in Home Science research
- Understand the key elements of a research process
- Explain ethical principles, issues and procedures

#### SYLLABUS DSE HS 6-1

## THEORY (Credits 3; Hours 45)

#### **UNIT I: Research Purpose and Design**

10 Hours

This unit will deal with meaning and importance of research in various areas of Home Science. Exposure to different types of research designs and measurement in Home Science research would also be given.

- Meaning, purpose and significance of research
- Research as a scientific method

- Types of research
- Quantitative, Qualitative and mixed method approaches
- Research Designs –Experimental and Non-Experimental; Descriptive and Observational; Participatory research
- Internal and external validity of research design
- Variables, concepts and measurement in research
- Levels of measurement
- Units of analysis

#### **UNIT II: Sampling and Research tools & techniques**

15 Hours

This unit will introduce the student to the concept of sampling and methods used to draw sample from population using examples from Home Science discipline. Students would also learn about types of data, its collection and reliability and validity concerns.

- Role of sampling in research
- Sampling techniques and their applicability, Sample size and sampling error
- Types of data: Primary and Secondary
- Tools of data collection; types, construction and administration- Interview, Questionnaire, Observation, Focus group discussion and other methods
- Validity and reliability of data collection tools

#### **UNIT III: The Research Process**

15 Hours

This unit will elaborate upon the various steps involved in conducting and reporting researches in Home Science.

- Defining the problem, research questions, objectives, hypotheses
- Review of related literature and originality in writing
- Systematic research: concept and methodology
- Planning the research
- Identifying variables and constructing hypothesis
- Selecting appropriate research methodology and tools
- Data analysis: coding and tabulation
- Writing a research report: styles and formats
- Citation formats: in medical sciences, social sciences

#### UNIT IV: Values, Social Responsibility and Ethics in Research

5 Hours

This unit will apprise the students about ethical concerns while conducting and reporting research.

- Ethical principles guiding research: from inception to completion and publication of research
- Plagiarism and Academic integrity in research: plagiarism tools and software
- Ethical issues relating to research participants and the researcher
  - o Rights, dignity, privacy and safety of participants
  - o Informed consent, confidentiality, anonymity of respondents, voluntary participation, harm avoidance

### PRACTICAL (Credits 1; 30 Hours)

- 1. Data visualization
- 2. Levels of Measurement
- 3. Types of research designs
  - a. Experimental and non-experimental; Descriptive and observational
  - b. Qualitative, Quantitative and mixed method
- 4. Sampling techniques and sample size calculation
  - a. Probability sampling method
  - b. Non-Probability sampling methods
- 5. Tools of data collection- Interview schedule, questionnaire and FGD
  - Designing/ Construction
  - Preparation of tools for ethical review
  - Pilot testing/ validity and reliability of the tool\
- 6. Data collection and analysis process: conducting interviews, administering questionnaire
- 7. Coding and tabulation of data for analysis
- 8. Citation formats and Plagiarism
- 9. Reviewing a research paper from a specific area of specialization in Home Science

#### **Essential Readings:**

- Kerlinger F. N. and Lee, H.B. (2017). *Foundations of Behavioral Research* 4<sup>th</sup> Ed. Harcourt College Publishers.
- Kothari, C. R. (2019). Research Methodology: Methods and Techniques. New Age International Pvt Ltd, New Delhi.
- Kothari, C. R. (2022). Shodh Padhati 1st Ed. New Age International Pvt Ltd, New Delhi.
- Kumar, R. (2019) Research Methodology: A Step-by-Step Guide for Beginners. 5<sup>th</sup> Ed. Sage Publications, New Delhi.

- Bernard, H. R. (2000). *Social research methods: Qualitative and quantitative approaches.* Thousand Oaks, CA.: Sage.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches.* Thousand Oaks, CA: Sage Publications.
- Davis, A. M., Treadwell, D. (2019). Introducing Communication Research: Paths of Inquiry. United Kingdom: SAGE Publications.
- Flynn, J.Z., Foster, I.M. (2009). *Research Methods for the Fashion industry*. Fairchild books, Bloomsbury publishing.
- Indian National Science Academy (INSA) (2019). Ethics in Science Education, Research and Governance. ISBN:978-81-939482-1-7. <a href="http://www.insaindia.res.in/pdf/EthicsBook.pdf">http://www.insaindia.res.in/pdf/EthicsBook.pdf</a>
- Jacobsen, K. H. (2020). *Introduction to health research methods: A practical guide*. Jones & Bartlett Publishers.
- UGC (2021) *Academic Integrity and Research Quality*. New Delhi: UGC, Retrieved from https://www.ugc.ac.in/e-book/Academic%20and%20Research%20Book WEB.pdf

# DISCIPLINE SPECIFIC ELECTIVE DSE HS 6-2: Innovation and Entrepreneurship

#### CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit d	listribution	of the course	Eligibility criteria	Pre- requisite of the Course (if any)
Code		Lecture	Tutorial	Practical/ Practice		
Innovation and Entrepreneur ship	4	1	0	3	NIL	NIL

#### **Learning Objectives**

- To motivate students to opt for innovation and entrepreneurship as a career option.
- To foster entrepreneurial traits and competencies
- To make students understand the critical role of creativity, design thinking and innovation in entrepreneurship development
- To prepare students to plan, launch and manage start-ups/enterprise
- To establish an ecosystem for students that is conducive to networking and incubating

#### **Learning outcomes**

After completing the course, students will be able to:

- Consider opting innovation and entrepreneurship as a career.
- Develop entrepreneurial traits and competencies.
- Ideate a viable business proposition.
- Network for venturing and innovating.
- Pitch a business proposal.

#### **SYLLABUS OF DSE 6-2**

THEORY (Credit 1: Hours: 15)

UNIT I: Innovation 5 Hours

- This unit focuses on developing the fundamental concept of innovation and its dimensions.
- Innovation: Concept, significance, types and process
- Innovation diffusion theory
- Innovation in organizations: Drivers and barriers, bottom-up and top-down approach, horizontal versus vertical approach
- Dimensions of innovation: Innovation eco-system in India, social Innovation, grassroots innovation, frugal innovation, and global Innovation-global innovation index framework (GII)

#### **UNIT II: Creativity & Design thinking**

4 Hours

- The focus of this unit will be on developing the basic concepts and role of creativity & design thinking in innovation.
- Creativity- Concept, significance, role, processes and fostering creativity for innovation
- Design thinking: Concept, discipline, role, mindset, resources, and processes
- Design Thinking Approaches: Empathy, Ethnography, Divergent thinking, convergent thinking, Visual thinking, Assumption testing, Prototyping and Time for learning and validation

#### **UNIT III: Entrepreneurship and Enterprise Management**

6 hours

This unit will orient the students to the concept of entrepreneurship and enterprise management.

- Entrepreneurship Concept, stages, growth process, and entrepreneurship development in India, Government policies and schemes
- Entrepreneur- characteristics, competencies, types, styles, and motivation
- Enterprise & its management- types and strategies for Start-up launching, management and sustenance
- Exit strategies for a new startup- trends in India
- Networking & business ethics

### PRACTICAL (Credit 3: Hours: 90)

# 1. Entrepreneurial Motivation: Developing an appreciation for entrepreneurial traits and entrepreneurship as a career through 14 Hours

- Entrepreneurial motivation orientation Sector-specific case studies of successful entrepreneurs and profiling of required traits for innovation
- Understanding self as a prospective entrepreneur Who am I?, Locus of control, Competency Profiling, SWOC analysis, Mapping entrepreneurial styles

#### 2. Understanding and appreciating Innovations and design thinking: 20 Hours

- Identification of innovations in day-to-day life
- Critical evaluation of innovations and design-driven solutions case studies
- Environment scanning for business opportunities
- User's empathy mapping understanding user's pain, pain creators and relievers

- Redesign activities for possible solutions products and services
- Industry-integrated learning live projects

#### 3. Market research & mapping start-up station:

12 Hours

- Environment scanning for business opportunities
- Ideation: Generation, articulation, testing and incubating
- Develop a feasibility report

#### 4. Business plan and appraisal:

10 Hours

- Business preparation
- Appraisal of business plan
- Risk auditing and mitigation

#### 5. Operations and Marketing management:

12 Hours

- Develop operational management sheet and applications for registrations and licenses
- Familiarizing with the relevant documents, including the inventory and stock registers.
- Customer segmentation and profiling
- Prepare the 4Ps of the marketing mix, including digital marketing tools
- Prepare an elevator pitch

#### 6. Financial management:

12 Hours

- Analysis of financial requirements and available capital
- Sources of finance bootstrapping, crowdfunding, angel investing venture capital
- Financial statements, cash flow management, applicable interest rates of different types of loans
- Calculation of financial ratios, break-even analysis and applicable taxes
- Designing funding strategy and start-up valuation

#### 7. Human resource management and legal framework:

10 Hours

- Functional requirements and cost implications
- Team formation
- Ensuring health and safety at the workplace
- Business communication
- Enterprise registration- Legal compliances, paperwork and cost
- Intellectual property rights

#### **Essential Readings:**

- Bhatt Arvind Kumar (2022). Innovation and Entrepreneurship. Atlantic publisher
- Chabbra T. N. (2019). Entrepreneurship Development. New Delhi: Sun India.
- Charantimath, P. M. (2018). Entrepreneurship Development and Small Business Enterprises. Pearson Publications.
- Carayanis Elias G, Samara Elpida T & Bakouros Yannis L.(2015). Innovation and Entrepreneurship. Springer.
- Drucker. Peter F. (2006), Innovation and Entrepreneurship. Harper Business

- Gundry L, K. & Kickul J. R. (2007). Entrepreneurship Strategy: Changing Patterns in New Venture Creation, Growth, and Reinvention. SAGE Publications, Inc.
- Santiago, Sam (2011), The official book of Innovation. Rising above LLC publisher
- Soni, Pwan.(2020). Design your thinking: The Mindsets, toolsets and skillsets for creative problem solving

#### **Suggested Readings:**

- Christensen M Clayton (2013). The innovator's dilemma. Harvard Business Review Press.
- Daum Callie (2020). Business strategy: essentials you always want. Vibrant publishers
- Goyal P. (2017). Before you start up: How to prepare to make your start-up a dream reality. Fingerprint publishing.
- HBR's 10 Must Reads on Startups and Entrepreneurship (2018). Featuring Bonus Article "Why the Lean Startup Changes Everything" by Steve Blank
- Nath, D. Mitra, S. (2020) Funding your startup and other nightmare. Penguin portfolio.
- Taneja & Gupta. (2001). Entrepreneur Development- New Venture Creation. New Delhi: Galgotia Publishing Company.

#### Web references:

- https://web.iima.ac.in/assets/upload/mdp/480284395YEP%20Brochure.pdf
- https://www.iimb.ac.in/entrepreneurship
- https://www.mepsc.in/skill-based-programs/
- <a href="https://ediindia.ac.in/pgdm-innovation-entrepreneurship-venture-development/">https://ediindia.ac.in/pgdm-innovation-entrepreneurship-venture-development/</a>

#### **Training material:**

• EMT kit developed by NIESBUD, New Delhi and EDII Ahmedabad