B.Sc.(Home Science)
Semester-I & II

Prospectus No. 2017191

संत गाडगे बाबा अमरावती विद्यापीठ
SANT GADGE BABA AMRAVATI UNIVERSITY

गृहविज्ञान विद्याशाखा
(FACULTY OF HOME SCIENCE)

PROSPECTUS

OF

The Examination for the B.Sc. (Home Science)
Semester-I, Winter-2016
Semester-II, Summer-2017
(Six Semester Degree Course)

2016

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Price Rs...../-

PUBLISHED BY
Dr. Ajay P. Deshmukh
Registrar
Sant Gadge Baba
Amravati University
Amravati -444 602

I N D E X

B.Sc. (Home Science) (Semester-I & II)

(Prospectus No.2017191)

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SANT GADGE BABA AMRAVATI UNIVERSITY
SPECIAL NOTE FOR INFORMATION OF THE STUDENTS

(1) Notwithstanding anything to the contrary, it is notified for general information and guidance of all concerned that a person, who has passed the qualifying examination and is eligible for admission only to the corresponding next higher examination as an ex-student or an external candidate, shall be examined in accordance with the syllabus of such next higher examination in force at the time of such examination in such subjects, papers or combination of papers in which students from University Departments or Colleges are to be examined by the University.

(2) Be it known to all the students desirous to take examination/s for which this prospectus has been prescribed should, if found necessary for any other information regarding examinations etc. refer the University Ordinance Booklet the various conditions/provisions pertaining to examinations as prescribed in the following Ordinances-

Ordinance No. 1	:	Enrolment of Students.
Ordinance No. 2	:	Admission of Students
Ordinance No. 4	:	National Cadet Corps
Ordinance No. 6	:	Examination in General (relevant extracts)
Ordinance No. 18/2001	:	An Ordinance to provide grace marks for passing in a Head of passing and Inprovement of Division (Higher Class) and getting Distinction in the subject and condonation of defficiency of marks in a subject in all the faculties prescribed by the Statute NO.18, Ordinance 2001.
Ordinance No.9	:	Conduct of Examinations (Relevant extracts)
Ordinance No.10	:	Providing for Exemptions and Compartments
Ordinance No. 19	:	Admission Candidates to Degrees
Ordinance No.109	:	Recording of a change of name of a University Student in the records of the University
Ordinance No.6 of 2008	:	For improvement of Division / Grade.

Ordinance No.19/2001	:	An Ordinance for Central Assessment Programme, Scheme of Evaluation and Moderation of answerbooks and preparation of results of the examinations, conducted by the University, Ordinance 2001.

Dr. Ajay P. Deshmukh
Registrar
Sant Gadge Baba Amravati University

*****

***DIRECTION**

No.: 45/ 2010 Date : 05/07/ 2010

Subject : Examinations leading to the Degree of (गृहविज्ञान स्नातक) Bachelor of Science (Home Science) (Three Year Degree Course - Semester Pattern), Direction 2010.

Whereas, the Board of Studies in Home Science have prepared and recommended the Schemes of Teaching and Examinations along with Draft Ordinance for B.Sc. (Home Science) Semester-I to VI as per Semester Pattern and Credit Based Performance and Assessment System.

AND

Whereas, the faculty of Home Science in its meeting held 2.12.2009 have recommended the schemes with corrections to the Academic Council.

AND

Whereas, Academic Council in its meeting held on 20.02.2010 while considering item No.16 8) A) R-2 on the agenda, have principally accepted the above recommendations of faculty of Home Science and constituted the Committee for some terms of references.

AND

Whereas, the Committee of Academic Council in its meeting held on 18.5.2010 vide item No.1 have suggested amendments in the above recommendations (Schemes of examinations and Draft Ordinances) and directed the Dean/expert member of Committee to submit the modified recommendations for placing it before the Academic Council meeting according to the terms of references.

AND

Whereas, the aforesaid recommendations were placed before the Academic Council in its meeting held on 28.5.2010 vide item No.46 and the Council resolved to accept the refer the Schemes/Draft Ordinance to the Ordinance Committee for placing it directly before the Management Council.

AND

Whereas, the Hon'ble Vice-Chancellor has accepted the corrections in the Scheme of Examination and proposed draft Ordinance of B.Sc. (Home Science) on behalf of Faculty of Home Science and Academic Council as recommended by Dean, faculty of Home Science.

AND

Whereas, the making of Ordinance/Regulation for B.Sc. (Home Science) (Semester Pattern) is a time consuming process.

AND

Whereas, it is necessary to provide the Schemes of examinations along with other details with eligibility criteria for the purpose of admissions.

Now, therefore, I, Dr. Kamal Singh , Vice Chancellor of Sant Gadge Baba Amravati University, in exercise of powers conferred upon me under sub-section (8) of section 14 of the Maharashtra Universities Act., 1994, do hereby direct as under:

1. This Direction may be called "Examinations leading to the Degree of (गृहविज्ञान स्नातक) Bachelor of Science (Home Science) (Three Year Degree Course - Semester Pattern), Direction 2010".
2. This direction shall come into force from the date of its issuance.
3. The following shall be the Examinations leading to the Degree of गृहविज्ञान स्नातक (Bachelor of Science) (Home Science) **(Semester Pattern)**, namely.
   (i) The B.Sc.(Home Science) Part-I (गृहविज्ञान स्नातक भाग-१) Examination consists of Semester-I & II;
   (ii) The B.Sc.(Home Science) Part-II (गृहविज्ञान स्नातक भाग-२) Examination consists of Semester-III & IV;
   (iii) The B.Sc.(Home Science) Final (गृहविज्ञान स्नातक अंत्य) Examination consists of Semester-V & VI;
4. The duration of the course under this Direction shall be of three academic years consisting of two semesters in each year.
5. Subject to his/her compliance with the provisions of this Direction and of other Ordinances in force from time to time, a candidate for admission to the course shall:

A) In the case of B.Sc. (Home Science) Part-I

i) have passed the 12th Standard Examination for the Science, Arts & Commerce including Vocational/M.C.V.C. stream of the Maharashtra State Board of Secondary and Higher Secondary Education or examination recognised as equivalent thereto.

OR

ii) Minimum two years Diploma/course after 10th examination of any recognised University/M.S.B.T.E./Govt. recognised Board or any other examination recognised as equivalent thereto.

6. I) Examinations of Odd Semesters :

(1) Odd semesters theory and practical examinations of Sem-I, III & V shall be conducted by College/ Department under the supervision of Principal / Head of the Department in winter. Supplementary examinations of odd semesters at UG level conducted by college in summer.

(2) The concerned subject teacher shall be the paper setter and valuer in case of theory examinations. Examiner of practical examinations will also be the concerned subject teacher of the College / Department.

(3) The concerned subject teacher of the College / Department shall do the work of paper setting as per the instructions for the paper setter. Valuation will also be done by the concerned teacher.

(4) Question papers, foil, counter foil of marksheet (in the prescribed format), attendance sheet of examinee and time table of examination shall be prepared by the concerned teacher and send it to the University duly signed by College Principal / Department Head.

(5) College / Department shall issue marksheets of odd semester examinations to students duly signed by respective Principal of College / Head of the Department.

II) Examinations of Even Semesters :

(1) The theory and practical examinations of even semester (Sem-II, IV & VI) shall be conducted by the University.

7. The examination of first, third and fifth semester B.Sc. (Home Science) shall be held in winter and supplementary examination in summer every year. And main examination of second, fourth & final semester shall be held in summer & the supplementary examination in winter every year.

The practical examinations of odd semesters (Sem-I, III & V) shall be conducted at college level under the supervision of the College Principal. The concerned teacher shall be the internal examiner. The practical examination of even semester (Sem-II, IV & VI) shall be conducted by the University by appointing an external and internal examiners. Practical examination of all the add-on papers of all semesters will be conducted by the college only.

8. Subject to his/her compliance with the provisions of this Direction & other Ordinances pertaining to Examination in force from time to time, the applicant for admission, at the end of the course of study of a particular semester/session, to an examination specified in column (1) of the Table-I below, shall be eligible to appear if:

(i) he/she satisfies the conditions in the table and the provisions thereunder.

(ii) he/she complies with the provisions of the Ordinance pertaining to the Examination in general from time to time.

(iii) he/she has prosecuted a regular course of study in a college affiliated to the University.

(iv) he/she has in the opinion of the Principal shown satisfactory progress in his/her studies.

TABLE-I

Name of the Examination	The student shall have passed / cleared the examination of semester	The student should have satisfactorily completed the following session /
B.Sc. (Home Science) Semester-I	12th Standard Examination or equivalent	ð ð
B.Sc. (Home Science) Semester-II	ð ð	B.Sc. (Home Science) Semester-I
B.Sc. (Home Science) Semester-III	½ heads of Sem-I & II combined together	ð ð
B.Sc. (Home Science) Semester-IV	ð ð	B.Sc. (Home Science) Semester-III
B.Sc. (Home Science) Semester-V	(1) B.Sc. (Home Science) Sem-I & II (2) ½ heads of Sem-III & IV combined together	ð ð
B.Sc. (Home Science) Semester-VI	ð ð	B.Sc. (Home Science) Semester-V

(**Note :** For calculating the heads, the theory and the practical shall be considered as a separate head and on calculation, fraction if any shall be ignored.)

9. The examinations specified in the **preceding** paragraph shall be held at such places and on such dates as may be appointed by the Board of Examination.

10. Without prejudice to the other provisions of Ordinance No.6 relating to the Examination in General, the Provisions of Paragraphs 5,7,8,10 and 31 of the said Ordinance shall apply to every Collegiate candidate.

11. The fee for each of the B.Sc.(Home Science)(गृहविज्ञान स्नातक) (Theory & Practical) Examinations shall be as prescribed by the competent authority, time to time.

12. i) The scope of the subjects shall be as indicated in the Syllabus
    ii) Medium of instruction shall be English or Marathi.
    iii) Examination papers shall be set in English and Marathi.

13. The Schemes of teaching and examinations for B.Sc. (Home Science) course, computation of SGPA & CGPA and illustrative example for results in Grade Point System shall be as provided under Appendix/ Appendices appended with the Regulation.

14. The system of evaluation will be as follows:

Theory papers, practicals and internal assessment will be evaluated in terms of marks. The marks will be added together and then converted into a grade and later a grade point average. Results will be declared for each semester and the final examination will give total grades and grade point average.

15. A total of 132 credits have to be taken by the students to complete the programme.

16. The computation of Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) of an examinee of *under graduate course* shall be as given below :-

The marks will be given in all examinations which will include internal assessment marks and the total marks for each Theory / Practical shall be converted into Grades as shown in Table.

SGPA shall be calculated based on Grade Points corresponding to Grade and the Credits allotted to respective Theory / Practical shown in the scheme for respective semester.

SGPA shall be computed for I, II, III, IV, V & VI Semester and CGPA shall be computed only in VI semester based on SGPAs of I, II, III, IV, V & VI Semester. :-

$$SGPA = \frac{C_1 \times G_1 + C_2 \times G_2 + ... + C_n \times G_n}{C_1 + C_2 + ... + C_n}$$

Where C_1 = Credit of individual Theory / Practial

G_1 = Corresponding Grade Point obtained in the respective Theory / Practical

$$CGPA = \frac{(SGPA)_I \text{ X } (Cr)_I + é\ é\ é\ é\ ..+ (SGPA)_{VI} \text{ X } (Cr)_{VI}}{(Cr)_I + é\ é\ + (Cr)_{VI}}$$

Where $(SGPA)_{I \text{ to } VI}$ = SGPA of I to VI Semester

$(Cr)_{I \text{ to } VI}$ = Total Credits for I to VI Semester

CGPA equal to 6.00 and above shall be considered as equivalent to First Class which shall be mentioned on Grade Card of VI Semester as a foot note.

Table of Grade, Percentage of Marks and Grade Points for U.G. Home Science Examinations

THEORY

Grade	Percentage of Marks	Grade Points
AA	80 ≤ Marks ≤ 100	10
AB	70 ≤Marks < 80	9
BB	60 ≤ Marks < 70	8
BC	55 ≤Marks < 60	7
CC	50 ≤ Marks < 55	6
CD	45 ≤Marks < 50	5
DD	40 ≤Marks < 45	4
FF	00 ≤ Marks < 40	0
ZZ	Absent in Examination	ð

PRACTICAL

Grade	Percentage of Marks	Grade Points
AA	85 ≤ Marks ≤ 100	10
AB	80 ≤ Marks < 85	9
BB	75 ≤Marks < 80	8
BC	70 ≤Marks < 75	7
CC	65 ≤Marks < 70	6
CD	60 ≤Marks < 65	5
DD	50 ≤Marks < 60	4
FF	00 ≤Marks < 50	0
ZZ	Absent in Examination	ð

Table of Final Grade Points for SGPA and CGPA

SGPA/CGPA	Final Grade	Remarks (Not to be mentioned on Transcript)
8.00-10	AA	Outstanding
7.00 ï 7.99	AB	Excellent
6.00-6.99	BB	Very Good
5.50-5.99	BC	Good
5.00-5.49	CC	Fair
4.50-4.99	CD	Average
4.00-4.49	DD	Below Average
00-3.99	FF	Fail
Absent in Examination	ZZ	ð

Table of Equivalence of Class / Division to CGPA

CGPA	Class/Division
7.50 or Higher	First Class with distinction
6.00 to 7.49	First Class
5.50 to 5.99	Higher Second Class
5.00 to 5.49	Second Class

17. A Bachelors degree programme is of a three academic year course. If a student fails to continue studies of a three years course, she/he will given the certificate as shown in Table-III after successful completion of semesters.

TABLE III

Sr. No.	Semester	Certificate
1	First	Certificate in Home Science
2	First & Second	Diploma in Home Science
3	Third & Fourth	Advance Diploma in Home Science

18. Provisions of Ordinance No.18 of 2001 in respect of an Ordinance to provide grace marks for passing in a Head of passing and improvement of Division (Higher Class) and getting distinction in the subject and condonation of deficiency of marks in a subject in all the faculties prescribed by the Statute No.18, Ordinance, 2001 shall apply.

19. As soon as possible after the examinations the Board of Examination shall publish a list of successful examinees. The result of final B.Sc. (Home Science) examination shall be classified as given in table III, Merit list shall be notified as per ordinance No. 6.

20. Notwithstanding anything to the contrary in this Direction, no person shall be admitted to this examination, if he/she has already passed the same examination or an equivalent examination of any other Statutory University.

21. Successful examinees at the B.Sc.(Home Science) Sem-I to Sem-V Examination shall be entitled to receive a Certificate signed by the Registrar and successful examinees at the B.Sc.(Home Science) Semester-VI Examination, shall on payment of the prescribed fees, receive a Degree in the prescribed form signed by the Vice-Chancellor.

Sd/-
Amravati (Dr.Kamal Singh)
Dated : 02/07/2010 Vice-Chancellor

ð ð

* Amended vide Directions Nos. 64 of 2010, 13 of 2011 and 34 of 2011.

SCHEME OF B. Sc. HOME SCIENCE & M. Sc. HOME SCIENCE

1) Scheme of **Bachelor's Programme (Composite)** and **Master's Programme** (in five specializations i.e. Family Resource Management, Food Science and Nutrition, Human Development, Textile and Clothing, Communication and Extension) is designed by considering regional, national and global needs and to achieve the academic, professional, social and personal development of students.

2) The **Bachelor's programme is of three year (six semesters)** / **Master's programme is of two year (four semesters)** duration. At every stage of completion of the course students will be given certificate, diploma and degree as shown under

3)

S. N.	Semester	Certificate/ Diploma/ Degree
1	First	Certificate in Home Science
2	First & Second	Diploma in Home Science
3	Third & Fourth	Advanced Diploma in Home Science
4	Fifth & Sixth	Bachelorõs Degree in Home Science
5	First & Second of Masters Programme	Post Graduate Diploma in Home Science*
6	Third & Fourth of Masters Programme	Masterõs Degree in Home Science*

*of respective specialization said in Para-1.

4) The examinations of first, third and fifth semester shall be held in winter and second, fourth and sixth semesters shall be held in summer. Grade system will be used to evaluate performance of the examinee.

5) The scheme is based on credit grade teaching evaluation system, comprise core Home Science and applied Science, elective / optional, intra and interdisciplinary, participatory (practical & Projects) and research courses.

6) Teachers appointed in Home Science faculty are eligible to teach **Elective of Semester-I to IV** and communication skills of bachelor programme other than the subject teacher.

7) About 20-30% marks are assigned for internal assessment in theory as well as practicals in which, performance in class test, session end examination, projects, seminars and assignments,
attendance etc. will be assessed. **Evaluation of internal and external is shown in tables attached**.

8) In order to develop research aptitude, research based subjects are included at masterôs level. Dissertation is compulsory and research work of dissertation will begin from third semester and end in fourth semester. There shall be an open viva-voce on it.

9) Scheme is focused on participatory learning, therefore practicalôs, seminars, home & community visits, extension activities, organization of intervention programmes, on job training / internship, projects participation in national and international days etc. are included.

10) Choice based course (General Interest Course) shall be as per the Science faculty of this University, notified from time to time.

11) Schemes of Bachelors and Masters Programme in Home Science are as enclosed herewith.

12) Relative Weightage of internal assessment, (Theory and Practical), practical, dissertation & Seminar, rating scale of theory and practical subjects, final Grade Points for SGPA and CGPA are given in respective tables.

*****

Annexure-I

Internal Assessment of Theory & Practical Examination for B.Sc. (Home Science)

Table-1 : Internal Assessment of Theory

Sr. No.	Particulars	Total Marks (%)
1	Class Tests	30
2	Assignments	20
3	Session End Examination	50

Table-2 : Internal Assessment of Practicals

Sr. No.	Particulars	Total Marks (%)
1	Submission of Reports	50
2	Performance during Practical / Sessional	50

Table-3: Evaluation of Practical

Sr. No.	Particulars	Total Marks (%)
1	Performance in the conduction of experiments and / or Sessional	50
2	Practical Record /Sessional Reports	30
3	Viva	20

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SANT GADGE BABA AMRAVATI UNIVERSITY
DIRECTION

NO. 10 / 2014 **Dated : 19/05/2014**

Subject : Corrigendum to Direction No.45 of 2010 in respect of Examinations leading to the Degree of (गृहविज्ञान स्नातक) Bachelor of Science (Home Science) (Three Year Degree Course - Semester Pattern).

Whereas, Direction No. 45 of 2010 in respect of Examinations leading to the Degree of (गृहविज्ञान स्नातक) Bachelor of Science (Home Science) (Three Year Degree Course - Semester Pattern), Direction 2010 is in existence in the University.

AND

Whereas, the above Direction was corrected vide Direction Nos.64 of 2010, 13/2011 & 34/2011.

AND

Whereas, the Academic Council in its meeting held on 17.2.2014 has accepted the recommendations of Faculty of Home Science vide item No.22 6) C) regarding admission to Degree course for the students having passed the two years Diploma/course of Maharashtra State Board of Vocational Education Examinations, Mumbai and 22 6) D) regarding the question papers of B.Sc. (Home Science) to be set in Hindi.

AND

Whereas, the above provisions are to be regulated by framing the Ordinance.

AND

Whereas, all above Directions are still to be converted into respective Ordinance/Regulation.

AND

Whereas, making Ordinance is a time consuming process.

Now, therefore, I, Dr.J.A.Tidke, Vice-Chancellor, Sant Gadge Baba Amravati University, Amravati in exercise of powers conferred upon me under sub-section (8) of Section 14 of the Maharashtra Universities Act, 1994, do hereby direct as under-

1) This Direction may be called ñCorrigendum to Direction No.45 of 2010 in respect of Examinations leading to the Degree of (गृहविज्ञान स्नातक) Bachelor of Science (Home Science) (Three Year Degree Course - Semester Pattern), Direction 2014ò.
2) This Direction shall come into force from the date of its issuance.

3) Following provisions be added in Direction No.45 of 2010 in respect of Examinations leading to the Degree of (गृहविज्ञान स्नातक) Bachelor of Science (Home Science) (Three Year Degree Course - Semester Pattern) :
   i) The students having passed minimum two years Diploma/course (after 10th examination) of Maharashtra State Board of Vocational Education Examinations, Mumbai shall be eligible to admit for B.Sc. (Home Science) Part-I.
   ii) The question papers of B.Sc. (Home Science) Part-I, II & Final to be set in Hindi along with English and Marathi.

Sd/-
Dated : 16/5/2014 (Dr.J.A.Tidke)
Vice-Chancellor,
Sant Gadge Baba Amravati University,
Amravati

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Syllabus prescribed for B.Sc. Part-I (Home Science)
Semester-I
(Implemented from the Academic Session 2010-2011)
Subject Code 113CS1
Communication Skills

Objectives :- After completing course students will be able to

- develop skills of communication in English and Marathi.
- understand the importance of communication language in academic and professional growth.

Theory

Unit-1 : 1.1 Elements of Communication :

- Sender
- Receiver
- Message
- Channel
- Feedback, and
- Context

1.2 Communication Processes :

- Various stages in the communication process, encoding, transmitting, decoding.
- Comprehending the context
- Knowing the receiver, sender
- Designing the message
- Encoding and Transmitting
- Selecting proper Channel
- Receiving and decoding.
- Feedback.

Unit-2 : 2.1 Effective Communication :

- Communication barriers and ways and means to overcome them.
- Each stage in communication process.
- Developing effective messages : Purpose
- Knowing the audience
- Structuring the messages.
- Selecting an appropriate channel.

2.2 Body Language :

- Introduction ï Voluntary and involuntary body language.
- Forms of body language, parts of body language.

- Uses of body language, body language in building interpersonal relations.
- Improving your body language.

Unit-3:

- Use of Article, conjuctions, prepositions.
- Tenses, moduls, subject-verb arrangement.
- Types of sentences ï Assertive, negative, interrogative, exclamatory and imperative, simple, compound and complex.
- Questions and auxiliary verbs.

Unit-4 : Communication Skills in English and Marathi

- Composition
- Letter writing ï Personal, official and business correspondence.
- Application ï Employment, complaints, resume.

Unit-5 : Communication Skills in English and Marathi

- Picture Composition
- Comprehension of the given passage.

Practicals :-

Practicals will be based on Unit-3, 4 & 5.

ñNote:- The strength of a batch of practical & tutorials for under graduate classes shall be 16 with an addition of 10% with the permission of Vice-Chancellor.ò

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(28) Geddas Marian; How to listen + one cassette
(29) O'Connor, J.D., A Course of English Pronounciation + Three Cassette, B.I.Languages Institutes, Mumbai.

Subject Code 115IH2
Introduction to Home Science

Objectives :- After completion of course, students will be able to-

- understand the role of Home Science in development of family, community and nation.
- Acquaint with the home science discipline which is an integrated body of knowledge for improving quality of life.

Theory

Unit-1 :

1.1 Home Science as a Discipline :

- Concept, meaning and definition.
- Objectives, philosophy, scope and need of Home Science.
- Home Science as a multidisciplinary course.

1.2 Resource Management :

- Meaning and definition.
- Need and importance of resources.
- Role of resource management in the development of family and community.

Unit-2 : Food Science and Nutrition :

- Meaning and definition.
- Need and importance of food.
- Role of food and nutrition for sound health of individual, family and community.

Unit-3 : Human Development :

- Meaning and definition.
- Importance and Principles.
- Role of Human Development in building good citizen.

Unit-4 : Textiles and Clothing :

- Meaning and definition.
- Need and importance of clothing.
- Role of textile and clothing in personality development.

Unit-5 : Communication and Extension :

- Meaning and definition
- Need and Importance
- Role of Communication and Extension in Community Development

Practical :

- Discuss the following statements and prepare reports.
  1. Home Science is an intra disciplinary course.
  2. Home Science is an inter disciplinary course.
  3. Home Science Education is playing a vital role in building capacity of individual, family and community for better quality of life.
- Maintain bulletin board of your college related to issues in home science by displaying pictures, paper cutting.
- Seminar on current trends in Home Science..

ñNote:- The strength of a batch of practical & tutorials for under graduate classes shall be 16 with an addition of 10% with the permission of Vice-Chancellor.ò

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Subject Code 111RM3
Resource Management

Objectives :-

After completion of course, students will be able to -

- Know systematic process of management and role of goal, values, standard etc.
- Understand the decision making process.
- Sensitize with family resources.

Theory

Unit-1 :

- Meaning and importance of Management in day to day life.
- Management Process :
  - Planning
  - Controlling
  - Evaluation.

Unit-2 : Decision Making :

- Meaning
- Types
- Modes of decision making in management.
- Techniques and tools for decision making.
- Decision tree.

Unit-3 : Family Resources :

- Meaning and definition.
- Types of resources.
- Factors affecting use of resources.
- Characteristics of resources.

Unit-4 : Factors Motivating Management :

- Goals.
- Values
- Standards

Unit-5 : Family Characteristics influencing Management :

- Life style.
- Types of family.
- Family Size.
- Stages of family life cycle.

Practical :

1. Plan any one event, execute and evaluate.
2. Identify a problem and go through decision making process.
3. Enlist human and non human resources of a family.
4. Find out the goals and values of a family.

ñNote:- The strength of a batch of practical & tutorials for under graduate classes shall be 16 with an addition of 10% with the permission of Vice-Chancellor.ò

References :

1. Literature of M.B.A. Distance learning courses.
2. Vargese, Home Management.
3. Khanka, S.S. (2007), Organizational Behaviour, S.Chand and Co. Ltd., New Delhi.
4. Alex, K; Soft Skills.
5. Betty Swanson, Introduction to Home Management.

Subject Code 113HP4
Human Physiology

Objectives :- After completing the course, the students will be able to-

- understand the physiology of human Body.
- enable the students to understand the integrated functions of all systems of the body.

Theory

Unit-1 :

- Animal Cell ï Structure and functions of each component of cell.

- Protoplasm ï Physical, chemical and physiological properties of protoplasm.
- Bones ï Various types, structure and functions of bone.

Unit-2 : Blood ï Blood composition, functions of each component.

- Coagulation of blood and its significance.
- Blood group and Rh factor.
- Blood Vessel ï Artery, vein, capillary.

Unit-3 : Heart ï Structure and functions of heart.

- Cardiac cycle.
- Blood pressure ï systolic and diastolic.
- Electrocardiogram (ECG)

Unit-4 :

- Digestive system ï Structure and functions of salivary gland, stomach, small intestine, pancreas and liver.
- Mechanism of mastication and swallowing.
- Digestion and absorption of carbohydrate, protein and fat.

Unit-5 : Respiratory System- Organs, their structure and functions of trachea, bronchi and lungs.

- Mechanism of respiration and its regulation.

Practicals :

1. Study of various bone.
2. Determination of blood group.
3. Determination of bleeding time.
4. Determination of clotting time.
5. Study of blood smear (fresh smear)

ñNote:- The strength of a batch of practical & tutorials for under graduate classes shall be 16 with an addition of 10% with the permission of Vice-Chancellor.ò

References :-

1. Guyton A.C., Hall, A.J. ï Text Book of Medical Physiology.
2. K.Sembulinga ï Essentials of Medical Physiology.
3. Chatterjee ï Text Book of Medical Physiology.
4. Chatterjee C.C.-Human Physiology
5. Guyton : Functions of Human Body
6. Jacfod and francone : Elements of Anatomy and Physiology.
7. Joglakar V.H. ï
8. Sharpe L & L., Schafer Histology.
9. Best and Taylerr : Human Body.
10. Rastogee. Text Book of Cytology.

Subject Code 112FC5

Food Chemistry

Objectives :- Total Mks. : 80

After completion of course, students will be able to -

- understand food compostion.
- understand chemistry of food.

Theory

Unit-1 : Definition of Food Nutrients :

- Food Composition - Nutrients : Macro Nutrient, Micro Nutrient
- Chemistry of Carbohydrates ï Monosaccharides, disaccharides, polysaccharides.
- Proteins ï Simple proteins, conjugated proteins and designed proteins.
- Lipids ï Simple lipids, compound lipids.

Unit-2 : Chemistry of Vitamins : (in brief)

- Water Soluble Vitamins ï Vitamin C, Thiamine, Riboflavin, Niacin, Folic Acid, Pyridoxine, Vit.B_{12}.
- Fat Soluble Vitamins ï Vitamin A, Vitamin D, Vitamin E and Vitamin K.

Unit-3 : Chemistry of Minerals : (in brief)

- Minerals : Calcium, Phosphorous, Sulphur, Potassium, Chlorine, Sodium and Magnesium.
- Trace Elements : Iron, fluorine, zinc, copper, iodine, chromium and cobalt.

Unit-4 : Chemistry of :

- Water-pH, turbidity, hardness, dissolved gases.
- Fibre.

Unit-5 : Chemistry of Non-nutrient components of food : (in brief)

- Oxalates
- Pigments
- Phytates
- Enzymes
- Tannins
- Trypsin inhibitors.

Practicals :

1. Detection of carbohydrates in a given sample Molish test.
2. Estimation of the concentration of reducing sugar Benedictôs Test.
3. Demonstration of breakdown of starch to monosaccharides with Hydrochloric acid.

4. Detection of proteins using colour reactions.
   - Biuret test
   - Xanthoproteic test
   - Millionôs test.
5. Detection of fats using-
   - Solubility Test
   - Emulsification
   - Bromine Water Test
   - Saponification
6. Detection of Iodine from salt.
7. Estimation of Vitamin C in a given sample.
8. Estimation of Iron in a given sample.

ñNote:- The strength of a batch of practical & tutorials for under graduate classes shall be 16 with an addition of 10% with the permission of Vice-Chancellor.ò

References :-

1. Pottern N. and Hotchkiss, J.H. (1996), Food Science; C.B.S. Publishers and distributers, New Delhi.
2. Duck Worth, R.B. (1978), Water Retension to Foods, Academic Press, London.
3. Peckham, G.G. (1969); Foundation of Food Preparation, McMillan Co.
4. Fox B.A. and Cameron, A.G.; Food Science and Chemical Approach; University of London, 1970.
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6. C.Gopalan, B.V.Rama Sastri, S.C.Balasubramanian (2004), Nutritive Value of Indian Foods, National Institute of Nutrition, ICMR, Hyderabad.
7. Food, Nutrition and Health by Dr.Shashi Goyal, Pooja Gupta; S.Chand and Co. Ltd., New Delhi.

Subject Code 115EE6
Ecology and Environment

Objectives :- To make students aware of Environment and Ecology.

Theory

Unit-1 :

- Introduction :- Meaning and definitions of ecology and environment, scope of subject, dimensions of environment, land, air, water, forest, habitat, population.

- Environmental Education :- Meaning, need, objectives & types. Role of Government, N.G.Oôs and Educational institution.
- Human Rights.

Unit-2 :

- Land :- As a resource, energy and mineral resources. Land pollution ï Sources, smelting, mining, industrial waste, domestic waste, agriculture. Major health hazard. Prevention and control.
- Water:- Utility of water, water pollution and scarcity. Pollutants, health hazards and their control.

Unit-3 :

- Forest :- Utility of forest and forest resources, deforestation and its impact. Forest conservation.
- Wild Life :- Endanger of species. Wild life preservation programmes, sanctuaries.

Unit-4 :

- Energy ï Major sources of energy ï Definition and classification.
- Non-renewable energy sources ï Coal Natural Gas, mineral oils, radiological substances.
- Renewable energy sources ï Solar energy, wind power, wave power, flux and reflux, Earth Power, Hydro Electricity, Biomass, Biogas.
- Uncertainties with Non-renewable energy sources.
- Alternative Energy sources and Energy conservation measures.

Unit-5 :

- Basic Gardening ï Types of soil, plant nutrients and use of fertilizers (Biofertilizer, Vermicompost). Basic Garden Plants & their classification. Cultivation of oyster mushroom.

Practicals :

(1) Study of Garden Equipment.
(2) Chemical characteristics of soil.
Simple test ï Mechanical composition of soil.
(3) Determination of C-O-D & B-O-D in given sample of water.
(4) Morphological study and identification of flower plants.
(5) Educational tour to sanctuary
(6) Visit to
   - Solar energy plant

- Biogas, Biodiesel
- Water treatment
- Rain water harvesting
- Water Conservation
- Recycling Plant etc.

(Every student shall attend the excursion and shall submit a report of field studies.)

ñNote:- The strength of a batch of practical & tutorials for under graduate classes shall be 16 with an addition of 10% with the permission of Vice-Chancellor.ò

References :

1. Douglas, lan (1983) : the Urban Environment, London, Edward Arnold.
2. Dowdswell, Elizabeth (1997) : Salvaging the Earth : Need for Action. P. 20-24 in Environmental crisis and humans at risk : Priorities for action. Edited by Sinha, Rajiv K. Ina Shree Publ., Jaipur.
3. Sinha, Rajiv K. (1997) : Reforesting the earth : an insurance for survival, P.213-227 in Environmental crisis and humans at risk : priorities for action, edited by Sinha, Rajiv K., Ina Shree Publ. Jaipur.
4. United Nations : Environment programme / World Health Organisation (1992) : Urban Air Pollution in Megacities of the World, Oxford : Blockwell.
5. White, R.R. (1994) Urban Environmental management, Environmental Change and Urban Design, London, John Wiley & Sons.
6. Water Resource Management., P. 17-254 in Strategies in Development Planning, edited by Singh, Alok Kumar & Rai, Vinay Kumar & Mishra, Anand Prasad.
7. Enger, Eldon D & Smith, Bradley F (1995) : Environmental Science : A Study of Interrelationships. Wm. C. Brown Publ., Dubuque, I.A.
8. Rao, B., Narsimha: Chemical pesticides in human environment : a serious health hazard. P. 105-110 In Environmental crisis and humans at risk. Priorities for action. Edited by Sinha, Rajiv K., Ina Shree Publ., Jaipur, 1997.
9. Shastri, Satish & Trivedi, Manjoo Bala (1997) : Environmental laws in India : How effective it is. P. 277-283 In Environmental crisis and humans at risk priorities for action. Edited by Sinha, Rajiv, Ina Shree Publ. Jaipur.
10. Sinha, Rajiv K. (1997) : Environmental Pollution : the 20th Century killer. P.49-64. in Environmental crisis and humans at risk : priorities for action, edited by Sinha, Rajiv K., Ina Shree Publ. Jaipur.

11. Sinha, Rajiv K. (1997) : Deforestation and Habitat Destruction : Threat to the Global Ecological Balance. P.65- 76. in Environmental crisis and humans at risk : priorities for action, edited by Sinha, Rajiv K., Ina Shree Publ. Jaipur.
12. Sinha, Rajiv K. & Khinchi, Shyam Sundar (1997) : Desertification : The silent eco crisis of land sterlization and annihilation of human civilization. P. 87-94 in Environmental crisis and humans at risk : priorities for action, edited by Sinha, Rajiv K., Ina Shree Publ. Jaipur.
13. Fundamentals of Botany - K.S.Bilgramy, L.M. Shrivastava, J.L.Shrimali.
14. Complete gardening in Botany - G.I. Yengar.
15. Basic Gardening - By the Editors of sunset Books and sunset magzines.
16. Water Pollution - Kudesia.
17. Publications of national Centres for Mushroom Research and Training.
18. Environmental protection - Paras, Devan.
19. उद्यान कला - श्रीवास्तव
20. परसातील लक्ष्मी - श्री.ग.सबनीस
21. Adoption of Ecology - Rustogi.
22. Water Pollution - Kudesia.
23. Sewage and Waste treatment.
24. Introduction to Environmental Microbiology - Mitchell, Ralph.
25. Water Pollution - Zajic J.E.
26. Plant Ecology - Bhatia, Sharma.
27. Ecology - Mahan P. Arora.
28. Air Pollution - Perlins H.L.
29. Introduction to waste water treatment process - Ramalhr R.S.

Elective Course
Subject Code 11 EL 7.1
Personality Development-I

Objectives :-

After completion of course, students will be able to improve personality through study of etiquettes, manners, personal grooming and swot analysis.

Unit-1 : Personality Development :

1.1 Concept of Personality
1.2 Determinents of Personality
1.3 Assessemnt of Personality
1.4 Improving Personality

Unit-2 : Personal Grooming :

2.1 Personal Hygiene
2.2 Balance Diet
2.3 Dressing
2.4 Care and maintenance of Hair, facial features, complexion, etc.
2.5 Exercise

Unit-3 : Etiquette and Manner :

1.1 Introduction to Etiquette, benefits of Etiquette.
1.2 Introduction to manner, practicing good manners.
1.3 Test Etiquettes and manners.

Unit-4 : Self Discovery :

1.1 Importance of knowing yourself.
1.2 SWOT Analysis.
1.3 Use of SWOT Analysis.

Unit-5 : Emotional Intelligence :

1.1 Meaning of emotions and moods.
1.2 Types of emotion.
1.3 Emotional intelligence.

Practical :-

(1) Assessment of your own personality through role play, skits, clues etc,
(2) Testing of emotional quotient.
(3) Prepare your own (personal / professional) SWOT analysis grid and set your working goals.
(4) Study of various types of dressings.
(5) Doûs and donûts of diet in care of personality.
(6) Improving personality through exercise.

ñNote:- The strength of a batch of practical & tutorials for under graduate classes shall be 16 with an addition of 10% with the permission of Vice-Chancellor.ò

References :-

(1) Robin S.P., Organization Behaviour, Prentice Hall of India.
(2) Luthans F., Organization Behaviour, Mc Graw Hill.

Subject Code 11 EL 7.2

Pranayam

Objectives :- After completion of course, students will be able to -understand health benefit of pranayam.

- develop skill of doing pranayam.
- practice pranayam.
- know the importance of Mudras and Chakaras.

Theory

Unit-1 :

- Introduction to Yoga.
- Pranayam ï Meaning and Importance.

Unit-2 :

- Bhastrika
- Kapalbhati
- Bahaya
- Oojace

Unit-3 :

- Anulom Vilom
- Bharamari
- Oodgith
- Pranav

Unit-4 :

- Mudras ï Types and importance.
  Dhyan, Shoonya, Apan, Vayu, Pruthvi, Shakti and Varun Mudra.

Unit-5 : Chakaras

- Root Chakra ï Reproductive system.
- Hypogastric Plexus ï Excretary system.
- Solar Plexus ï Digestive system.
- Lower mind plexus ï Skeleton system.
- Cardiac Plexus ï Circulatory system.
- Carotid Plexus ï Respiratory system.
- Medulary Plexus ï Nervous system.

Practical :-

- Practice of Mudras
- Practice chakaras
- Develop skill of pranayam.

ñNote:- The strength of a batch of practical & tutorials for under graduate classes shall be 16 with an addition of 10% with the permission of Vice-Chancellor.ò

References : Publications of Patanjali Yogpeeth, Haridwar.

Subject Code 11EL 7.3
Kitchen Gardening-I

Objectives :- After completing the course the students will be able to-

- understand importance and cultivation of fruits and medicinal plants.
- know the various household technologies..

Theory

Unit-1 : Kitchen Garden

- Meaning and concept.
- Kitchen Garden an approach to food security at house hold level.
- Other benefits of Kitchen Garden.

Unit-2 : Management of Kitchen Garden

- Soil, tools, fertilizers, seed, water etc.
- Guidelines of successful management of Kitchen Garden.
- Post harvest handling of plant produce.

Unit-3 : Classification of Vegetable Crops :
Based on season (rainy, winter & summer) fruit vegetable, root vegetables, bulbus vegetables, tuber vegetables, leafy vegetables, legume vegetables, cole crops, cucurbits.

Unit-4 : Cultivation aspects of rainy season. Vegetables in kitchen garden. hilli, Cowpea, Okra, Palak, Cluster bean.

Unit-5 : Cultivation aspects of Winter season vegetables in kitchen garden. Tomato, Onion, Corriander, Cauliflower, Brinjal.
(Points for cultivation aspect of rainy and winter season vegetables ï Season and climate, soil, nursery management, manuring, spacing, bed preparation, irrigation, interculture operation, harvesting, yield, disease, pest.)

Practicals :-

(1) Planning and lay-out of kitchen garden.
(2) Preparation of different beds for vegetables.
(3) Classification of manures & fertilizers.
(4) Methods of irrigation in kitchen garden.
(5) Preparation of nursery bed and transplanting.

(6) Identification and control of vegetable pest.
(7) Identification and control of vegetable diseases.
(8) Use of different pots for vegetable cultivation in terrace garden.
(9) Preparation of vermicompost, zero energy cool chamber.
(10) Visit to different Kitchen Garden.

ñNote:- The strength of a batch of practical & tutorials for under graduate classes shall be 16 with an addition of 10% with the permission of Vice-Chancellor.ò

References :-

(1) Kitchen Gardening ï S.P.Singh
(2) Vegetable crops in India ï K.S.Yawalkar
(3) Vegetable production in India ï D.V.S.Chauhan
(4) Principles of vegetable production ï S.P.Singh
(5) Leaf Vegetables ï Krishnamurthy.

Syllabus prescribed for
B.Sc. Part-I (Home Science)
Semester-II
(Implemented form the Academic Session 2010-11)

Subject Code 123CS8
Communication Skills

Objectives :- After completing the course, students will be able to improve with knowledge and skills of communication interact in social conventions.

Theory

Unit-1 : Reading Skills :

- Reading and its benefits.
- Mechanics of reading
- Types of reading, surveying, skimming and scanning.
- Reading and making notes ï by summery, by answering the given questions.
- Casual reading and focused reading.
- Reading for entertainment, information and intellectual purposes.

Unit-2 : Listening Skills :

- Hearing and Listening.
- Factors making hearing easy and listening difficult.
- Barriers in the exercise of listening and ways and means to overcome them.

Unit-3 : Speaking Skills :

- Useful information of phonetics.
- Greeting, responses, introducing self, guests and friends.
- Taking leave and requesting.
- Inviting, accepting and declining an invitation.
- Visiting a doctor and lawyer etc.
- Narrating an experience.
- Asking for information.
- Making suggestions.
- Describing a scene or incident.
- Making and presenting advertisements and slogans.

Unit-4 : Communication in English and Marathi :

- Story building.
- Dialogue writing.

Unit-5 : Communication in English and Marathi :

- Writing narrative.
- Report writing.
- Notice for ï meeting, agenda and minutes.

Practicals :- Practicals will be based on following skills-

Writing Skills :-

(1) Practice the skills of good hand writing.
(2) Learn spelling, punctuation, use of capital.
(3) Reinforce vocabulary and strengthen already mastered skills.
(4) Keep a written record of what has been learnt.
(5) Take notes from books, newspapers, lectures.
(6) Keep records and to maintain a diary.
(7) Write narrative.
(8) Describe a picture.
(9) Practise reproducing sproken language in written form.
(10) Participation in Spelling games like word building, spelling bee compitation, memory game etc.

Reading Skills :-

(1) Practice development of a large, right vocabulary.
(2) Practice development of skill in identifying unfamiliar words.
(3) Practice development of good eye movement habit.
(4) Development of proper habits of posture, holding books and so on.
(5) Development of speed and fluency in reading.

(6) Practice reading with correct stress, rhythm and intonation.

Listening Skills :-

(1) Practice listening to take notes.
(2) Practice listening closely to remember & recall.
(3) Practice listening alternatively to answer simple listening asks and questions.
(4) Practice being able to predict what the speaker is gaing to say next.
(5) Practice identifying the right pronunciation.

Speaking Skills :-

(1) Practice speaking in chorus in small groups or individually.
(2) Practice pronunciation skills in the class.
(3) Practice for correct stress and intonation.
(4) Practicing oral composition developed by question answer techniques.
(5) Practice narrating simple experiences / incidents.
(6) Practice speaking for two or three minutes on a given topic or to take part in a debate.
(7) Practice speaking through role plays.

ñNote:- The strength of a batch of practical & tutorials for under graduate classes shall be 16 with an addition of 10% with the permission of Vice-Chancellor.ò

References :-

1. Lonergan, J. : Teacherôs Manual + Three Video Cassettes + Two Audio
2. Lonergan, J. : Follow through students.
3. Hobbs J. : Teaching Observed + Two Video Cassettes, British Institute.
4. Tomaleni, B. : Video in Classroom + One Video Cassette, British Institute, UCO Building.
5. Haycraft J. : Getting on in English + Four Cassettes, British Institute.
6. Kumar, K.J. : Communication Skills in English, Vipul Prakashan Mumbai.
7. Longman, A.: Essential Activator, Longmans.
8. Taylor G. : English Conversation Practice, Mc Graw Hill Pub., New Delhi.
9. Leech G. : English Grammar for Today, Macmillan, London.
10. Philips, Sam. : 3000 Synonyms and Antonyms, Goodwill Pub. N.Delhi.
11. Duff, A.M. : A Twist in the Tail + Three Audio Cassettes, Oxford New Delhi.
12. Bansal, R.K. : Spoken English

13. Augustine, A.E., Macmillan Grammar, Macmillan.
14. Hengh, G.A. : News Writing, Kanishk Pub., N.Delhi.
15. Hyde, H.W. : Television and Radio Announcing.
16. Mitra Anand : Television & popular Culture in India.
17. Kabir, N.M. : Talking Films., Oxford Publications.
18. DeSouza, Y.K. : Electronic Media & Internet, Book Enclave.
19. Dattatrey, P. : Group Discussion Methods of Teaching, Prentice Hall of India Pvt.Ltd.
20. Dixson, Robert J. : Eveready Dialogues in English Speaking Effectively, Cambridge Univ. Press, London.
21. Field, Marion : Improving Your Written English, Jaiko Publishing House.
22. Swan, Michael : Practical English Usage, Oxford.
23. Jones, Daniel, Cambridge English Pronouncing Dictionary, Cambridge Univ. Press, London.

Subject Code 122FN9
Food & Nutrition

Objectives :- After completing the course, students will be able to-

- understand the functions of food and the role of various nutrients, requirements and their effects of deficiency and excess.
- make familier with the different methods of cooking and methods of improving the nutritional quality of food.
- develop skill of preparing nutrient rich recipes.

Theory

Unit-1 : Introduction to Nutrition :

- Basic Terminologies in nutrition and food preparation.
- Classification of food according to functions.
- Functions of food :-
  Physiological, mental, social & spiritual functions.

Unit-2 :

- Classification of nutrients
- Macro nutrients :
  Carbohydrates ï Classification, sources, functions, requirement.
  Proteins ï Classification, sources, function and requirement.
  Fats - Classification, sources, function and requirement.

Unit-3 :

- Micro nutrients :
  Vitamins ï Classification.
  Fat soluble vitamins - sources, function and requirement.
  Water soluble vitamins - sources, function and requirement.

Unit-4 :

- Micro nutrients.
- Minerals.
  Macro Minerals ï Calcium, Phosphorous, Sulphur, Potassium.
  Sources, functions, RDA, deficiency.
  Micro Minerals ï Zinc, Fluorine, Iron, Iodine, Copper, Magenese.
  Sources, functions, RDA, deficiency

Unit-5:

- Methods of Cooking and Effect of cooking on nutritive value of food.
- Methods of improving nutritional quality of food. Germination, Fermentation, Supplementation, Substitution, Fortification & Enrichment.

Practicals :-

1. Basics of Cookery
   - Preparation of Kitchen work area.
   - Kitchen Equipments ï Use and care.
   - Standard portion size of foods and their nutritional contribution.
   - Standard and household measures of one portion of raw and cooked food.
   - Calculation of cost and nutritive value per serving portion.
   - Evaluation of recipe.
2. Prepare list of excellent and good sources of energy, protein, vitamins, and minerals and prepare following recipes out of them.
   - Energy giving recipes
     Rice, wheat, sorghum, Ragi, Bajra, corn recipes. (5)
     Potato, Sweet Potato, other roots, sago recipes. (2)
     Energy rich hot and cold beverages. (2)
   - Protein Rich Recipes :
     Soy, pulses, nuts and oil seeds, meat, fish, poultry egg, milk etc. recipes. (10)
   - Vitamin and Mineral Recipes.
   - Vitamin B Complex rich recipes. (2)
   - Vitamin C rich recipes. (2)
   - Vitamin A rich recipes. (2)
   - Calcium rich recipes. (2)
   - Iron rich recipes. (2)

ñNote:- The strength of a batch of practical & tutorials for under graduate classes shall be 16 with an addition of 10% with the permission of Vice-Chancellor.ò

References :

(1) Dietary Guidelines for Indians ICMR.
(2) Nutritive Value of Indian foods ICMR
(3) Shri Laxmi ï Food Science
(4) Shri Laxmi ï Nutrition
(5) Shubhangi Joshi ï Nutrition and Dietetics
(6) Shakuntala Manay ï Food Science.
(7) Park and Park ï Preventive and Social Medicine.
(8) Food, Nutrition and Health by Dr.Shashi Goyal, Pooja Gupta; S.Chand and Co. Ltd., New Delhi.

Subject Code 123HD10
Human Development

Objectives :- After completion of the course, students will be able to-

- introduce the students to the major concepts of Human Development.
- bring awareness amongst the students regarding the concept, scope and dimensions.
- sensitize the student to interventions in the field of Human Development.
- acquaint the students about the areas of Human Dvelopment.

Theory

Unit-1 : Introduction to Human Dvelopment :
- 1.1 Meaning & Definition of Human Dvelopment.
- 1.2 Scope of Human Dvelopment.
- 1.3 History of Human Dvelopment.
- 1.4 Studies of Human Dvelopment.

Unit-2 : Growth and Development :
- 2.1 Meaning & Definition.
- 2.2 Principles of Development.
- 2.3 Factors influencing growth and development.

Unit-3 : Stages of Development (Age, Characteristics and Developm ental Tasks) :
- 3.1 Prenatal Development.
- 3.2 Infancy (0-2 yrs)
- 3.3 Childhood (2 to 12 yrs)
- 3.4 Puberty

Unit-4 : Types of Development (Upto Puberty) :
- 4.1 Physical Development.

- 4.2 Mother Development.
- 4.3 Speech Development.

Unit-5 :
- 5.1 Emotional Development.
- 5.2 Social Development
- 5.3 Intelluctual Development

Practical :-

(1) Preparation of Resource file on Human Development.
(2) Visits to nursery school.
(3) Class Tests
(4) Types of painting (brush, pencil spray vegetable)
(5) Paper Work
(6) Flash Cards
(7) Clay Modelling.
(8) Record Book.

ñNote:- The strength of a batch of practical & tutorials for under graduate classes shall be 16 with an addition of 10% with the permission of Vice-Chancellor.ò

Books :-

(1) Development Psychology ï E.B.Hurlock
(2) Child Behaviour and Development ï B.Kuppuswamy.
(३) बाल विकास - नलिनी व-हाडपांडे
(४) बालविकास एवं पारंपारिक सं~ंध - सुरेस भटनागर
(५) मानव विकास ï डॉ.शशीप्रभा जैन
(6) Adolescent Development & Adjustment ï L.Crow & A.Crow
(७) किशोरावस्था ï नलिनी चांदवसकर
(८) बालविकास ï डॉ.पन्ना अखानी, डॉ.सुषमा दाते.

Subject Code 123HP11
Human Physiology

Objectives :- After completing the course, the students will be able to-

- understand the Physiology of Human Body.
- enable the students to understand the integrated functions of all systems of the body.

Theory

Unit-1 : Excretory System – Organs of excretion, their structure and functions.
- Mechanism of urine formation.
- Normal and abnormal constituents of urine.

Unit-2 : Female Reproductive System :

- Structure and functions of ovaries, fallopian tubes and uterus.
- Menstrual Cycle, ovulation and menopause.
- Pregnancy, parturition and lactation.

Unit-3 : Nervous System.

- Structure of neurone.
- Structure and functions of cerebrum and cerebellum.
- Cerebrospinal fluid (C.S.F.)
- Reflex arc and reflex action.

Unit-4 : Endocrine Gland :

- Structure and functions of Pituitary Gland.
- Structure and functions of Thyroid Gland.

Unit-5 : Human Genetics :

- Human Chromosome, the inheritance and variation in Man..
- The genetic basic of human disease like sickle cell.anaemia, haemophilia, centured, blindness and diabetics.

Pracitcals :-

(1) Identification of slides.
(2) Determination haemoglobin percentage.
(3) Recording pulse rate.
(4) Measurement of blood pressure.
(5) Physical and chemical examination of urine.

ñNote:- The strength of a batch of practical & tutorials for under graduate classes shall be 16 with an addition of 10% with the permission of Vice-Chancellor.ò

References :-

(1) Guyton A.C., Hall, A.J. ï Text Book of Medical Physiology.
(2) K.Sembulinga ï Essentials of Medical Physiology.
(3) Chatterjee ï Text Book of Medical Physiology.
(4) Chatterjee C.C.-Human Physiology
(5) Guyton : Functions of Human Body
(6) Jacfod and francone : Elements of Anatomy and Physiology.
(7) Joglakar V.H. ï
(8) Sharpe L & L., Schafer Histology.
(9) Best and Taylerr : Human Body.
(10) Rastogee. Text Book of Cytology.

Subject Code 124TC12

Textile Chemistry

Objectives :- To enable the students to-

- impart knowledge pertaining to basic principles of dyeing.
- acquaint with the materials, reagents, equipments and processes involved in laundering.
- sensitize them the difference in the laundering processes used for different fabrics.

Theory

Unit-1 : A brief study of different types of dyes, classification of dyes and their applicability to different fibres.

Unit-2 : Methods and styles of dyeing.

- Methods ï Jet, Jiq, winch warp beam etc.
- Styles ï Resist, discharge and direct.

.Unit-3 : Classification and introduction to laundry process.

- Wet and dry cleaning.
- Materials and equipments.

Unit-4 : Water, soaps and Detergents :

- Hard and soft water ï Temparary and Permanent
- Hardness ï Problems caused by hard water.
- Methods of softening water.

Unit-5 : Bleaches, additives and starches, stain removers..
Classification, application of bleaches to various fibres.
Additives ï Optical brighteners, blueing agents, fluorescent, whiteners.
Starches ï Types, characteristics and methods of application.

Practicals :-

(1) Dyeing of different fabrics using suitable dyes.
(2) Resist dyeing.
(3) Stain Remover
(4) Laundry of different fibres.
(5) Bleaching and Starching.
(6) Dry cleaning.

ñNote:- The strength of a batch of practical & tutorials for under graduate classes shall be 16 with an addition of 10% with the permission of Vice-Chancellor.ò

References :-

(1) Cockett, B.R. (1964) : Dyeing and Printing, London, Sir Issac, Pitman and Sons Ltd.

(2) Shenai V.A. (1973) : Chemistry of Dyes and Principles of Dyeing, Textile Book Sellers and Publishers.
(3) Shenai V.A. (1977) : Technology of Dyeing, Technology Textile Processing, Vol. VI, Bombay Sevak Publication.
(4) Sammel Delvin (2006) : Dyes and Pigments. Delhi JVI Publishing House.
(5) Alexander, R.R. (1977) : Textile Products Selection, Use and Care, Boston, Houghton Miffin Co.
(6) Deolkar Durga (1976) : Household Textile and Laundry Work, Delhi Atmaram and Sons.
(7) Tortora Phillis (1978) : Understanding Textiles, Macmillan Publishing Co. Inc. N.Y.
(8) Priya Bharkar and Tara Chand (2005) : Textile and Laundry, New Delhi Common Wealth Publisher.

Subject Code 125EE13

Ecology & Environment

Objectives :- To make students aware of Environment and Ecology.

Theory

Unit-1 : Habitate and Population :

Uncontrolled population growth. Causes and its impact, unplanned growth of cities and towns, migration, problems of housing and essential services controlled measures.

Unit-2 : Waste Management :

Waste, types of waste, effects of waste, methods of waste management, dumping or filling, controlled tipping or sanitory pits, burning or incinatiation, manure pit, barial composting.

Unit-3 : Air ï Composition and Usefulness to plant and animal kingdom. Air pollution ï sources, effects and controlled measures. Green house effect, ozone layer depletation, acid rain.

Noise Pollution ï Sources, effects and control.

Unit-4 : Basic Gardening ï Garden, types of garden, importance of garden (aesthetic, medicinal & commercial), study of some common medicinal plants. Plant Diseases ï Tika, rust, powdery mild.

Pest ï Aphid. Thrips and Catter Pillaus.

Green Revolution ï impact on environment.

Unit-5 : Ecosystem ï Structure and functions.

Environmental Protection ï Policies, programmes and legislations. Rights and duties of citizen for environmental protection.

Practicals :-

(1) Useful garden operations ï Preparation of different types of beds, sowing, trans planting ï Potting and Repotting.
(2) Plant Propogation Techniques ï Cutting, layering, Budding and Grafting.
(3) Experiments on Air Pollution.
(4) Measurement of noise level of different places by noise level meter.
(5) Morphological study and identification of seeds & vegetables.
(6) Morphological study and identification of common medicinal plants.
(7) Identification of some common plant diseases.
(8) Visit to pond ecosystem / lake / river ecosystem.
(9) Visit to ornamental garden and medicinal garden.
(10) Visit to agriculture to study impact of agrochemicals on environment.
(11) Visit to agriculture to study elements of sustainable agriculture.

ñNote:- The strength of a batch of practical & tutorials for under graduate classes shall be 16 with an addition of 10% with the permission of Vice-Chancellor.ò

References :

1. Douglas, lan (1983) : the Urban Environment, London, Edward Arnold.
2. Dowdswell, Elizabeth (1997) : Salvaging the Earth : Need for Action. P. 20-24 in Environmental crisis and humans at risk : Priorities for action. Edited by Sinha, Rajiv K. Ina Shree Publ., Jaipur.
3. Sinha, Rajiv K. (1997) : Reforesting the earth : an insurance for survival, P.213-227 in Environmental crisis and humans at risk : priorities for action, edited by Sinha, Rajiv K., Ina Shree Publ. Jaipur.
4. United Nations : Environment programme / World Health Organisation (1992) : Urban Air Pollution in Megacities of the World, Oxford : Blockwell.
5. White, R.R. (1994) Urban Environmental management, Environmental Change and Urban Design, London, John Wiley & Sons.
6. Water Resource Management., P. 17-254 in Strategies in Development Planning, edited by Singh, Alok Kumar & Rai, Vinay Kumar & Mishra, Anand Prasad.
7. Enger, Eldon D & Smith, Bradley F (1995) : Environmental Science : A Study of Interrelationships. Wm. C. Brown Publ., Dubuque, I.A.
8. Rao, B., Narsimha: Chemical pesticides in human environment : a serious health hazard. P. 105-110 In Environmental crisis and humans at risk. Priorities for action. Edited by Sinha, Rajiv K., Ina Shree Publ., Jaipur, 1997.

9. Shastri, Satish & Trivedi, Manjoo Bala (1997) : Environmental laws in India : How effective it is. P. 277-283 In Environmental crisis and humans at risk priorities for action. Edited by Sinha, Rajiv, Ina Shree Publ. Jaipur.
10. Sinha, Rajiv K. (1997) : Environmental Pollution : the 20th Century killer. P.49-64. in Environmental crisis and humans at risk : priorities for action, edited by Sinha, Rajiv K., Ina Shree Publ. Jaipur.
11. Sinha, Rajiv K. (1997) : Deforestation and Habitat Destruction : Threat to the Global Ecological Balance. P.65- 76. in Environmental crisis and humans at risk : priorities for action, edited by Sinha, Rajiv K., Ina Shree Publ. Jaipur.
12. Sinha, Rajiv K. & Khinchi, Shyam Sundar (1997) : Desertification : The silent eco crisis of land sterlization and annihilation of human civilization. P. 87-94 in Environmental crisis and humans at risk : priorities for action, edited by Sinha, Rajiv K., Ina Shree Publ. Jaipur.
13. Fundamentals of Botany - K.S.Bilgramy, L.M. Shrivastava, J.L.Shrimali.
14. Complete gardening in Botany - G.I. Yengar.
15. Basic Gardening - By the Editors of sunset Books and sunset magzines.
16. Water Pollution - Kudesia.
17. Publications of national Centres for Mushroom Research and Training.
18. Environmental protection - Paras, Devan.
19. उद्यान कला - श्रीवास्तव
20. परसातील लक्ष्मी - श्री.ग.स~नीस
21. Adoption of Ecology - Rustogi.
22. Water Pollution - Kudesia.
23. Sewage and Waste treatment.
24. Introduction to Environmental Microbiology - Mitchell, Ralph.
25. Water Pollution - Zajic J.E.
26. Plant Ecology - Bhatia, Sharma.
27. Ecology - Mahan P. Arora.
28. Air Pollution - Perlins H.L.
29. Introduction to waste water treatment process - Ramalhr R.S.

Elective Course

Subject Code 12 EL 14.1

Personality Development-II

Objectives :-

- To introduce the knowledge for basic requirement of self presentation in competitive world.
- To acquaint the students about the skills of vocational field.

- To inculcate the various skills of corporate life in students.

Theory

Unit-1 : Forming Values :

- Meaning, importance.
- Types of values.

Unit-2 : Career Planning :

- Benefit.
- Guidelines.

Unit-3 : Presentation of Employability Skills :

- Body language.
- Interpersonal Skills ï Team work, group discussion.
- Aptitude tests ï Interview, Personal, Telephone.

Unit-4 : Negotiation Skills :

- Negotiation during intervenes with prospective employers.
- Presenting a positive self image during customer interaction.

Unit-5 : Stress Management :

- Meaning, kinds of stress, measures to overcome stress.

Practicals :-

Based on theory portion.

ñNote:- The strength of a batch of practical & tutorials for under graduate classes shall be 16 with an addition of 10% with the permission of Vice-Chancellor.ò

References :-

(1) Wallace & Masters ï Personal Development for life and work.
(2) Thomson ï All about Body language ï Good Will Publishing House.

Subject Code 12EL 14.2

Yogasana

Objectives :- After completion of course students will-

- understand need and importance of yogasana
- develop skill of yogasana.

Theory

Unit-I : Introduction to Yogasana :

- Meaning
- Importance and need.
- Various types of Yogasana.

Unit-II : Yogasana for-

- General fitness.

- Increase height.

Unit-III : Yogasana for-

- Pregnant woman.
- Lactating mother.

Unit-IV : Yogasana for Reduction of body fat (weight) -

- Stomach
- Thighs
- Hip
- Breast etc.

Unit-V :Yogasana in -

- Diabetics
- Arthritis
- Other degenerative diseases.

Practical :-

Practice Yogasana given in theory.

ñNote:- The strength of a batch of practical & tutorials for under graduate classes shall be 16 with an addition of 10% with the permission of Vice-Chancellor.ò

References :-

(1) Publications of Patanjali Yogpeeth, Haridwar.

(2) योगासन - प्राणायम करा व निरोगी रहा, नवनीत पब्लिकेशन्स लिमिटेड, अहमदाबाद.

Subject Code 12EL 14.3

Kitchen Gardening-II

Objectives :- After completing the course the students will be able to-

- understand importance and cultivation of fruits and medicinal plants.
- know the various household technologies..

Theory

Unit-1 : Organic kitchen garden :

- Meaning
- Need and importance.

Unit-2 : Cultivation of Fruits :

- Papaya, banana, lemon, pomegrante, custard apple etc.

Unit-3 : Cultivation of Medicinal Plants :

- Korphad, Tulas, Gulwel, Kadulimb etc..

Unit-4 : Cultivation of Technology :

- Mushroom.

- Wheat Grass.

Unit-5 : Household Technology :

- Vermi compost.
- Vermi culture
- Vermi wash.
- Jiwamrut
- Zero energy cool chamber.

Practicals :-

Based on Unit-4 & 5.

ñNote:- The strength of a batch of practical & tutorials for under graduate classes shall be 16 with an addition of 10% with the permission of Vice-Chancellor.ò

References :-

(1) Kitchen Gardening ï S.P.Singh
(2) Vegetable crops in India ï K.S.Yawalkar
(3) Vegetable production in India ï D.V.S.Chauhan
(4) Principles of vegetable production ï S.P.Singh
(5) Leaf Vegetables ï Krishnamurthy.

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