



MAHATMA GANDHI UNIVERSITY
of
MEDICAL SCIENCES & TECHNOLOGY
JAIPUR

Syllabus

M. sc. Yoga Therapy

(4 SEMESTERS P.G. DEGREE PROGRAM)

2023-24

Recommended by Committee of Courses Allied Health Sciences at its meeting held on 03.02.2023 and approved by faculty and Academic Council at its meeting held on

NOTICE

- 1. The university reserves the right to make changes in the syllabus /books/ guidelines, fee-structure or any other information at any time without prior notice the decision of the university shall be binding on all.**
- 2. The jurisdiction of all court cases shall be Jaipur Bench of Hon'ble Rajasthan High Court only.**

**RULES & REGULATIONS OF
M. sc. Yoga Therapy
PROGRAM CODE: - MSC2123**

(4 SEMESTERS P.G. DEGREE PROGRAM)

1. Introduction:

Objectives/aims of the course:

The course is designed to acquire sufficient knowledge of the patient's condition and how to treat in a holistic manner; students will get thorough knowledge of their specialization and full exposure of patients. Students will also be able to learn administration & management skills as well. In this 4-semester course student will participate and do their own research by understanding the principles of Research Methodology. M.Sc. course also offers the students a chance to learn about pedagogy, teaching skills for as they wish to pursue their career in academics.

Program Outcomes:

At the end of the completion of M. Sc. Yoga Therapy, the Postgraduate will be able to:

1. Apply advanced knowledge of clinical skills in problem solving.
2. Gather and interpret information within a holistic framework pertaining to health.
3. Design, implement and monitor appropriate therapeutic interventions.
4. Apply scientific principles to the concepts of health, illness and disability.
5. Promote health.
6. Appraise the social and political context of health care.
7. Undertake independent research projects.
8. Promote Physiotherapy education.
9. Appraise action and social skills of self and others.

2. TITLE OF THE COURSE:

M. sc. Yoga Therapy

3. DURATION OF THE COURSE:

Duration of the course: 2 Years (4 Semesters)

4. MEDIUM OF INSTRUCTION:

English shall be the medium of instruction for all the subjects of study and for examination of the course.

5. ELIGIBILITY FOR ADMISSION:

Candidates who have passed B.Sc. Yoga Therapy/BNYS/BAMS/BHMS/BPT/BOT or Graduation degree in any stream with yoga Certifications/Diploma from recognized institutions.

6. PROCESS OF ADMISSION:

Admission to M. sc. Yoga Therapy Program shall be made on the basis of written entrance examination conducted for the purpose.

7. RESERVATION POLICY:

Reservation in admissions shall be applicable as per policy of the State Government.

8. ENROLLMENT:

Candidates admitted to the M. sc. Yoga Therapy course shall be enrolled with the university by remitting the prescribed fee along with the application form for enrolment duly filled in and forwarded to the university through Principal of the College within stipulated date. Candidate already enrolled with this University need not be enrolled again provided he/she has not taken migration certificate from this University.

9. ATTENDANCE:

Minimum 75 % attendance is required in each year, both for theory and practical classes separately, student with deficient attendance will not be permitted to appear in university examination.

10. WORKING DAYS:

Each semester shall consist of not less than 120 working days including examination.

11. CONDUCTION OF THE UNIVERSITY EXAMINATION:

University semester examination shall be conducted twice in a year with an interval of six months. Even Semester examination shall be conducted after 6 months of odd semester examination

12. ELIGIBILITY TO APPEAR FOR UNIVERSITY EXAMINATION

Student is required to have minimum 75% attendance (in theory and practical separately) /to make him/her eligible to Candidates failing in one or more, subject in a semester will be required to appear in their failing subject in the next examination of the same semester next year.

A candidate will have to clear all the subjects of First to Third semester before appearing at Fourth semester university examination.

13. APPOINTMENT OF EXAMINER & PAPER SETTER

- All the examiners - Paper setters, Theory examination answer books evaluators, External and internal Examiners for Practical examinations shall be appointed by the president of the University from the panel submitted by HOD/Convener of the respective COC through concerned dean of faculty.
- Paper setters shall be external. He shall also evaluate answers sheets of his paper.
- Practical examiner can be appointed to evaluate answers sheets.
- Professor/ Assoc. Professor /Assistant Professor/Lecturer/Allied Health Professional having PG qualification and 5 years' teaching experience after PG in respective field is eligible to act as Internal/External examiner of theory/practical examination.

14. SCHEME OF EXAMINATION

The University Examination (End of Semester Examination or EOSE) for the Course shall be conducted semester wise at the end of every semester.

i. Theory

- (a) There shall be five Theory papers in each semester of the study.
- (b) Each Theory paper examination shall be of 3 hours duration and of maximum 70 marks.
- (c) Internal assessment (Continuous Assessment or CA) shall be of 30 marks for each Theory Paper.
- (d) The Paper Setter shall set the questions within the prescribed course of study of the concerned paper. There will be a set pattern of question papers duly approved by Academic Council.
Pattern of question papers (Annexure 1)
- (g) Passing Marks: A candidate will have to obtain at least 50% marks including internal assessment in each theory paper to pass.

II. Practical and Viva-Voce Examination

- (a) At the end of each semester there shall be practical and viva-voce examination of 200 marks. It shall be conducted after the Theory examination is over. A candidate will have to obtain at least 50% marks in practical and viva-voce examination
- (b) Practical and viva-voce examination shall be of 140 marks (Practical 100 marks + viva voce 40 marks) and internal assessment of sixty marks.
- (c) The pattern of practical examination shall be as follows –

II. Practical and Viva-Voce Examination

- (a) at the end of each semester there shall be practical and viva-voce examination of 100 marks. It shall be conducted after the Theory examination is over. A candidate will have to obtain at least 50% marks in practical and viva-voce examination
- (b) University practical and viva-voce examination shall be of 70 marks and internal assessment of 30 marks.
 - a. The pattern of practical examination shall be as follows –

| Semester | Practical Marks | | | | Min. Pass Marks | Practical Examiners |
|--------------|------------------------------------|-----------|----|-------------|-----------------|--------------------------------------|
| | EOSE (End of Semester Examination) | | | Total Marks | | |
| | Practical | viva-voce | CA | | | |
| I to IV Each | 100 | 40 | 60 | 200 | 100 | One Internal & one External Examiner |

III Result

1. Candidate have to obtain at least 50% marks separately in each Theory paper including continuous assessment and a minimum of 50% marks in the practical examination including viva-voce for him to be declared pass.
2. A Candidate who has failed in a Paper (s) will reappear in respective paper(s) in next examination of the same semester next year.
3. Candidate who has failed in Practical examination will reappear in practical examination only in next practical examination of the same semester.

IV. Supplementary/Remanded Examination

- (a) There shall be a supplementary examination of III semester only within two months of the declaration of the result of the main examination of IV Semester.
- (b) Internal assessment marks obtained in main examination in the concerned failed paper(s)/practical shall be carried forward for working out the result of next Theory paper(s) and/or practical examination.
- (c) A failing candidate, if opt for improvement his/her internal assessment marks shall be allow to do so. In case he does appear for improvement or gets lesser marks in internal assessment, his earlier marks will be considered for working out the result of the failing subject.

V. Promotion to Next Semester

1. A candidate who has passed or failed in one or more subjects shall be promoted to respective next semester.
2. A candidate will be allowed to appear for the IV semester examination only when the backlog of all papers (theory papers and practical) of I semester to III semester exams including elective papers (if any) is cleared.
3. The student is required to clear all the University examination within 4 years from the joining of the course otherwise he/she will not to be allowed to join internship program and he/she will have to leave the course.

M. Sc. Yoga Therapy Marks Distribution of Semester – I Examination

| Course/Paper Name | Course/Paper Code | Credits | Theory/ Practical/Viva | | | Pass Marks |
|---|--|-----------|------------------------|------------|--------------|--|
| CORE COURSES | | | UE | IA | Total | 50 % aggregate including continuous assessment marks separately in theory and practical. |
| Yoga Philosophy | MSC2123S101T | 7 | 70 | 30 | 100 | |
| Research Methodology | MSC2123S102T | 7 | 70 | 30 | 100 | |
| Anatomy | MSC2123S103T | 7 | 70 | 30 | 100 | |
| ELECTIVE COURSES (ANY TWO) | | | | | | |
| Medical Terminology | MSC2123S104T | 6 | 70 | 30 | 100 | |
| Computer applications | MSC2123S105T | 6 | 70 | 30 | 100 | |
| Introductory Mathematics | MSC2123S106T | 6 | 70 | 30 | 100 | |
| PRACTICAL/ABILITY ENHANCEMENT COURSE | | | | | | |
| Practical & Viva | MSC2123S107P | 7 | 140 | 60 | 200 | |
| TOTAL | 06 (05 Theory Paper 01 Practical) | 40 | 490 | 210 | 700 | |

M. Sc. Yoga Therapy Marks Distribution of Semester – II Examination

| Course/Paper Name | Course/Paper Code | Credits | Theory/ Practical/Viva | | | Pass Marks |
|---|--|-----------|------------------------|------------|--------------|---|
| CORE COURSES | | | UE | IA | Total | 50 % aggregate including continuous assessment marks separately in theory and practical. |
| Physiology | MSC2123S201T | 7 | 70 | 30 | 100 | |
| Yoga for prevention and promotion of health | MSC2123S202T | 7 | 70 | 30 | 100 | |
| Sanskrit Bhasha Vijnanam | MSC2123S203T | 7 | 70 | 30 | 100 | |
| ELECTIVE COURSES (ANY TWO) | | | | | | |
| Database Management System | MSC2123S204T | 6 | 70 | 30 | 100 | |
| Data Analysis & Visualization | MSC2123S205T | 6 | 70 | 30 | 100 | |
| Internet Technology | MSC2123S206T | 6 | 70 | 30 | 100 | |
| PRACTICAL/ABILITY ENHANCEMENT COURSE | | | | | | |
| Practical & Viva | MSC2123S207P | 7 | 140 | 60 | 200 | |
| TOTAL | 06 (05 Theory Paper 01 Practical) | 40 | 490 | 210 | 700 | |

M. Sc. Yoga Therapy Marks Distribution of Semester – III Examination

| Course/Paper Name | Course/Paper Code | Credits | Theory/ Practical/Viva | | | Pass Marks |
|---|--|-----------|------------------------|------------|--------------|--|
| CORE COURSES | | | UE | IA | Total | 50 % aggregate including continuous assessment marks separately in theory and practical. |
| Patanjali Yoga Sutra | MSC2123S301T | 7 | 70 | 30 | 100 | |
| Fundamentals of Integrative Medicine | MSC2123S302T | 7 | 70 | 30 | 100 | |
| Hatha Yoga Pradipika | MSC2123S303T | 7 | 70 | 30 | 100 | |
| ELECTIVE COURSES (ANY TWO) | | | | | | |
| Human Genetics and Disease | MSC2123S304T | 6 | 70 | 30 | 100 | |
| Hospital Organization and Management | MSC2123S305T | 6 | 70 | 30 | 100 | |
| Legal and Medical issues in hospital | MSC2123S306T | 6 | 70 | 30 | 100 | |
| PRACTICAL/ABILITY ENHANCEMENT COURSE | | | | | | |
| Practical & Viva | MSC2123S307P | 7 | 140 | 60 | 200 | |
| TOTAL | 06 (05 Theory Paper 01 Practical) | 40 | 490 | 210 | 700 | |

M. Sc. Yoga Therapy Marks Distribution of Semester – IV Examination

| Course/Paper Name | Course/Paper Code | Credits | Theory/ Practical/Viva | | | Pass Marks |
|--|--|-----------|------------------------|------------|--------------|--|
| CORE COURSES | | | UE | IA | Total | 50 % aggregate including continuous assessment marks separately in theory and practical. |
| Evidence based Yoga Therapy – I | MSC2123S401T | 7 | 70 | 30 | 100 | |
| Evidence based Yoga Therapy – II | MSC2123S402T | 7 | 70 | 30 | 100 | |
| Yogic Counseling | MSC2123S403T | 7 | 70 | 30 | 100 | |
| ELECTIVE COURSES (ANY TWO) | | | | | | |
| Artificial Intelligenceand Machine Learning | MSC2123S404T | 6 | 70 | 30 | 100 | |
| Healthcare Technology | MSC2123S405T | 6 | 70 | 30 | 100 | |
| Organizational Behavior | MSC2123S406T | 6 | 70 | 30 | 100 | |
| PRACTICAL/ABILITY ENHANCEMENT COURSE | | | | | | |
| Dissertation and Viva | MSC2123S407P | 7 | 140 | 60 | 200 | |
| TOTAL | 06 (05 Theory Paper 01 Practical) | 40 | 490 | 210 | 700 | |

14. REVALUATION / SCRUTINY:

Revaluation of answer book(s) and security of the marks is not permissible in Post Graduate Course as per the policy of the university.

15. TEACHING HOURS:

Teaching hours shall be not less than 400 hours in every semester.

16. AWARD OF DEGREE:

The degree shall be awarded by the University only after receipt of Course completion certificate and NO dues from the Head of Institution. (Principal of the college).

18. LETTER GRADES AND GRADE POINTS

| LETTER GRADE | GRADE | PERCENTAGE OF MARKS |
|-------------------|-------|---------------------|
| O (Outstanding) | 10 | 100 % |
| A+(Excellent) | 9 | 90-99.99 % |
| A (Very Good) | 8 | 80-89.99 % |
| B+(Good) | 7 | 70-79.99 % |
| B (Above Average) | 6 | 60-69.99 % |
| C(Average) | 5 | 50-59.99 % |
| F(Fail) | 0 | 0 Less than 50 % |
| Ab (Absent) | 0 | 0 Absent |

19. Grades Qualifying for Pass:

Theory and Practical Examination

1. **Minimum 5 Grade** in the university examination and **5 Grade** in internal assessment evaluated by the department are required to pass **who fails to obtain 5 Grade shall be declared failed.**

2. A student obtaining **Grade F** shall be considered **failed** and will be required to reappear in the examination.

3. Letter Grade **Ab (Absent)** will be showing the absent of the candidate in examination and will be required to reappear in the examination.

Continuous Assessment

Continuous assessments will be conducted two times in a semester. **Continuous** assessments will consist of departmental examinations, assignments, departmental posting, and evaluations. The objective is to allow students to have hands on experience. It would also help students to develop and formulate the datacollection process and data analysis.

End of Semester Examination

- a. Each theory paper examination shall be of 3 hours duration.
- b. There will be Five theory papers in Each Semester.

20. CREDIT WEIGHTAGE DISTRIBUTION (%)

| Item | Credit Weight (%) |
|--|-------------------|
| 1.Internal Assessment | |
| Class participation/presentation, study records | 10.00% |
| Assignment, quizzes and summer training report | 10.00% |
| Departmental Postings, case studies, project reports | 10.00% |
| 2.University Exam | |
| 70.00% | |
| Total | 100% |

21. Authority to issue transcript

The Controller of Examination of the University shall be the authority for issuing transcript after receiving the described fee from the candidate.

22. Working Hours/Days

| | |
|-----------------|------------------------------|
| Duration | 2 Years (4 Semesters) |
| Working Days | 6 Days in A Week |
| Working Hours | 36 Hours in A Week |

23. Distribution of Courses

| Semester | Core Course Component (CCC) | Elective Course Component (ECC) | Practical | Total No. Of Courses |
|-------------------|-----------------------------|---------------------------------|-----------|----------------------|
| Semester-1 | 3 | 2 | 1 | 6 |
| Semester-2 | 3 | 2 | 1 | 6 |

| | | | | |
|-------------------|-----------|----------|----------|-----------|
| Semester-3 | 3 | 2 | 1 | 6 |
| Semester-4 | 3 | 2 | 1 | 6 |
| Total | 12 | 8 | 4 | 24 |

24. Distribution of Courses in Each Semester

| Sr. No. | Type of Course | Numbers |
|----------------|------------------------|----------------|
| 1 | Core Course | 3 |
| 2 | Elective Course | 2 |
| Total | | 05 |
| | | (Five) |

25. Types of Courses in M. sc. Yoga Therapy: -

1. Core Course-course designed under this category aim to cover the basics that a student is expected to imbibe in the discipline of M. sc. Yoga Therapy. A course, which should compulsorily be studied by a candidate as a core requirement is termed as a Core course.

2. Elective Course-it is a course which can be chosen from a pool of courses it is specific or specialized or advanced or supportive to the discipline of Master of M. sc. Yoga Therapy. Students must **CHOOSE ANY ONE COURSE IN EACH SEMSTER** from the pool of course given to that semester.

3. Practical: practical are the courses based upon the content that leads to Knowledge enhancement. They are skill-based and are aimed at providing hands-on-training, competencies, skills, etc.

4. Ability Enhancement Courses (AEC) /Practical: The Ability Enhancement (AE) Courses or practical are the courses based upon the content that leads to Knowledge enhancement. They are skill-based and are aimed at providing hands-on-training, competencies, skills, etc.

Computation of SGPA and CGPA

The UGC recommends the following procedure to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA):

a. The SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the courses taken by a student and the sum of the number of credits of all the courses undergone by a student, i.e

$$SGPA (S_i) = \frac{\sum (C_i \times G_i)}{\sum C_i}$$

where C_i is the number of credits of the it course and G_i is the grade point scored by the student in the ith course.

b. The CGPA is also calculated in the same manner taking into account all the courses

undergone by a student over all the semesters of a program, i.e.

$$\mathbf{CGPA} = \frac{\sum(C_i \times S_i)}{\sum C_i}$$

where S_i is the SGPA of the semester and C_i is the total number of credits in that semester.

- c. The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.

Illustration of Computation of SGPA and CGPA and Format for Transcripts

i. Computation of SGPA and CGPA

Illustration for SGPA

| Course | Credit | Grade letter | Grade point | Credit Point (Credit x Grade) |
|----------|--------|--------------|-------------|----------------------------------|
| Course 1 | 3 | A | 8 | 3 X 8 = 24 |
| Course 2 | 4 | B+ | 7 | 4 X 7 = 28 |
| Course 3 | 3 | B | 6 | 3 X 6 = 18 |
| Course 4 | 3 | O | 10 | 3 X 10 = 30 |
| Course 5 | 3 | C | 5 | 3 X 5 = 15 |
| Course 6 | 4 | B | 6 | 4 X 6 = 24 |
| | 20 | | | 139 |

Thus, **SGPA = 139/20 = 6.95**

Illustration for CGPA

| Semester 1 | Semester 2 | Semester 3 | Semester 4 |
|--------------------------|--------------------------|-------------|-------------|
| Credit : 20 | Credit : 22 | Credit : 25 | Credit : 26 |
| SGPA: 6.9 | SGPA: 7.8 | SGPA: 5.6 | SGPA: 6.0 |
| | | | |
| | | | |
| | | | |
| Semester 5 | Semester 6 | | |
| Credit : 26 SGPA: 6.3 | Credit : 25 SGPA: 8.0 | | |

Thus, **CGPA = 20 x 6.9 + 22 x 7.8 + 25 x 5.6 + 26 x 6.0 + 26 x 6.3 + 25 x 8.0**

$$\frac{\quad}{\quad} = \mathbf{6.73}$$

M.Sc. Yoga Therapy

SEMESTER I

| | |
|----------------------------|--------------------|
| Placement Semester | Semester I |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Yoga Philosophy |
| Course Code | MSC2123S101T |
| Course Type | Core |
| Credits | 7 |
| Hours per Semester | 70 |

Unit1: Introduction to Vedas and Upanishads: Pedagogy - Oral talk with Q & A Session

1. Historical facts about Vedas
 - Dating and Authoring of Vedas
 - Content of Vedas
2. Vedas in brief
 - Jnana Kanda – Prasthanatraya – Upanishads and Vedanta Texts (Taittiriya, Katha, Mandukya, Yoga Vasistha)
 - Karma Kanda - Types of Karma, Performance of Karma, Results of Karma, Theory of Karma
3. Upanishad Prakriyas(10 upanishads teaching techniques) in brief

Unit 2: Yoga Philosophy in Upanishads:

Pedagogy - Oral talk with Q & A Session, PPT, Students may be asked to prepare and enact dramas on the topics such as Panchakosha Viveka, Ananda Mimamsa and four wives story, stories of 10 Principle Upanishads.

Main Human quests

- Who am I (Panchakosha Viveka) –Understanding Consciousness through Indian Philosophy
- Ananda Mimamsa – Happiness Analysis and Measuring Ananda
- Energy Model

Unit 3: Yoga Philosophy in Upanishads:

Pedagogy- Oral talk with Q & A Session, PPT, Students may be asked to prepare and enact dramas on the topics of related to dharma sandigdha

Concept of Dharma –

- Literal Meaning of Dharma
- Nyaya vs Dharma
- Varna and Ashrama Dharma – Social Dharma and Life journey
- Varna and Ashrama Dharma – Possible conflicts of Dharma and answers

Unit 4: Darshnas:

Pedagogy - Oral talk with Q & A Session, PPT.

1. Astika Darshanas
 - Sankhya, Yoga
 - Nyaya, Veishika
 - Mimamsa, Vedanta – Yoga Vasista
 - Narada Bhakti Sutras
2. Nastika Darshanas
 - Charvaka, Jaina, Boudha

Unit 5: Bhagawad gita:

Pedagogy -Oral talk with Q & A Session, PPT, and Students may be encouraged to give presentation with PPT on Gunas

- Concept of Guna
- Concept of Yajna
- Concept of Atma

Reference books

1. The Vedas - by Chandra sekarendra Saraswati (2014), Bhavan's Publication Bhagavadgita
2. Yoga its basis and applications - by H.R. Nagendra – SVYP
3. Let Go – Discover lasting happiness – Prof A. Satyanarayana Sastry - SVYP
4. Integrated Approach of Yoga Therapy for Positive Health – Dr R Nagaratna and Dr H R Nagendra – SVYP
5. Bhagawat Gita
6. Shatdarshana – Sw Sukhabodhananda – RK mat publications
7. Narada Bhakti Sutras – Sw Harshananda – RK Mat publications

| | |
|----------------------------|----------------------|
| Placement Semester | Semester I |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Research Methodology |
| Course Code | MSC2123S102T |
| Course Type | Core |
| Credits | 7 |
| Hours per Semester | 70 |

Unit I. Research Methodology Concepts –I

- Introduction to research methodology – definition of research, types of research, need for Yoga research
- The research process
- Literature review – Purpose, Process, digital source: PubMed, etc., presentation of literature review
- Ethics of research– Laboratory ethics, Publication ethics, Ethical bodies – IEC & IRB, Guidelines for good clinical practice
- Scales of measurement – nominal, ordinal, interval, ratio

Unit II. Research Methodology Concepts -II

- Data collection methods: Observation, Interview, psychological tests, questionnaire, physiological tests, and archive
- Sampling methods - Population and Sample; Simple Random Sampling, Systematic Sampling, Stratified Sampling, Cluster Sampling
- Methods of controlling biases - Randomization
- Types of variables – Independent , dependent, confounding variable

Unit III. Research Methodology Concepts -III

- Types of research design – Experimental designs, cross sectional design, Case study, Survey
- Reliability: Test-Retest Reliability, Internal Consistency, Inter rater Reliability
- Validity: Construct Validity, Face Validity, Content Validity, Criterion Validity, Convergent and Discriminant Validity
- Issues of bias and confounding
 - Selection bias, Recall bias, Observer or measurement bias, Publication bias

- Randomization, Matching, Crossover design, Restriction (or blocking), Stratification, Blinding

Unit IV. Statistical Concepts –I

Pedagogy - Oral talk with Chalk with Q & A Session, PPT

- Descriptive statistics
- Inferential statistics
- Null Hypothesis Significance Testing: hypothesis and null hypothesis
- Statistics and Parameters
- Sample and Population
- Generalization
- One tailed, two tailed hypothesis
- Types of Errors and its control
- Central Limit Theorem

Unit V. Statistical Concepts - II

Pedagogy - A work shop need to be conducted where in one day the teacher has to take a simple problem and show them how a synopsis is written to that research problem; Next day all students should be asked to take a simple topic and define the problem and write hypothesis and null hypothesis; next session they should be made to write the literature survey; next session finalizing the sampling methodology, next session finalizing the design, next session data collection.

- Point estimate and interval estimate
- Power analysis: Effect size, sample size
- p-value
- Confidence interval
- Statistical tests and design
- Assumptions of tests
- Statistical tests for various designs: Correlation, proportions, paired-sample and independent sample t-tests, Chi-Square tests, ANOVA, Repeated Measures ANOVA, parametric and non-parametric tests.

Reference Books

1. C R Kothari. (2009). Research Methodology: Methods and Techniques. New Age International (P) Ltd. New delhi.
2. R. L. Bijlani. (2008). Medical Research: All You Wanted to Know But Did Not Know Who to Ask. Jaypee Brothers Medical Publishers Pvt. Ltd. New delhi
3. Zar, J. H., & Zar. (1999). Biostatistical Analysis. Pearson Education. New Delhi

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|----------------------------|--------------------|
| Placement Semester | Semester I |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Anatomy |
| Course Code | MSC2123S103T |
| Course Type | Core |
| Credits | 7 |
| Hours per Semester | 70 |

Unit-1: Cell & Muscular-skeletal system

- i. Anatomy of the Skeleton
- ii. Classification of bones-Axial bones and appendicular bones
- iii. Types of joint –Synovial joints and Fibrous joint
- iv. Structure of synovial joints
- v. Types of synovial joints
- vi. Types of Muscle in the body (striate, Smooth muscle, Cardiac muscle)

Unit-2: Cardiovascular &Respiratory system

- i. Anatomy of heart
- ii. Functional anatomy of blood vessels
- iii. Respiratory system of human-Nose, nasal cavity, pharynx,
- iv. trachea,
- v. larynx, bronchiole,
- vi. lungs

Unit-3: Nervous system &Special senses

- i. Introduction to nervous system,
 - ii. Classification of nerve fibres,
 - iii. Cerebellum
 - iv. Basal ganglia
 - v. Motor cortex
- Yoga Therapy

- vi. Limbic system
- vii. Autonomic Nervous system
- viii. Structure of Eye, Receptors & neural functions of retina
- ix. Structural and functions of external, middle and inner ear,
- x. Taste buds, Perception of taste.

Unit 4: Excretory system and functions

- i. Excretory system of human-Kidney
- ii. Ureter
- iii. urinary bladder,
- iv. urethra
- v. Structure of nephron 0

Recommended books:

1. Brizlani – Anatomy and Physiology for Nurses
2. Ross and Wilson – Anatomy and Physiology
3. ElanieNicponMarieb- Human anatomy and physiology

Reference books:

1. C. C. Chattarjee- Human physiology
2. Choudhary- Medical physiology

| | |
|----------------------------|---------------------|
| Placement Semester | Semester I |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Medical Terminology |
| Course Code | MSC2123S104T |
| Course Type | Elective |
| Credits | 6 |
| Hours per Semester | 60 |

Origin of medical terms historical perspective, Various uses and application of medical terms, Purpose of learning medical terminology Stem Words/Root, Musculo-skeletal system, Respiratory system, Cardiovascular system, Digestive system Endocrine system, CNS system, Urinary system, Reproductive system, Organs of special sense, Integumentary system.

Prefixes, Definition, Various Prefixes, meaning and example terms, Pseudo Prefixes – meaning & Example terms Suffixes, Definition & Types of suffixes, Various Suffixes, meaning and example terms Surgical procedures (System wise) concepts of body systems.

components within individual systems, and relationships between systems, division of the body into body cavities and planes. Disease, disorders and dysfunctions, terminology of body systems to issues of disease, diagnostic and therapeutic tests, and procedures. Common sign and symptoms of disease conditions, Common Medical Terms.

Common medical terms and meaning of those terms, Signs and Symptoms, Evolution of Death Registration, Multiple Cause- of-death Statistics Related Health.

| | |
|----------------------------|-----------------------|
| Placement Semester | Semester I |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Computer applications |
| Course Code | MSC2123S105T |
| Course Type | Elective |
| Credits | 6 |
| Hours per Semester | 60 |

COMPUTER- 1.0 Introduction 1.1 Objectives 1.2 what is Computer? 1.2.1 Basic Applications of Computer 1.3 Components of Computer System 1.3.1 Central Processing Unit 1.3.2 Keyboard, mouse and VDU 1.3.3 Other Input devices 1.3.4 Other Output devices 1.3.5 Computer Memory 1.4 Concept of Hardware and Software 1.4.1 Hardware 1.4.2 Software 1.4.2.1 Application Software 1.4.2.2 Systems software 1.5 Concept of computing, data and information 1.6 Applications of IECT

1.6.1 e-governance 1.6.2 Entertainment 1.7 Bringing computer to life 1.7.1 Connecting keyboard, mouse, monitor and printer to CPU 1.7.2 Checking power supply.

OPERATING COMPUTER USING GUI BASED OPERATING SYSTEM- 2.0 Introduction 2.1 Objectives 2.2 Basics of Operating System 2.2.1 Operating system 2.2.2 Basics of popular operating system (LINUX, WINDOWS) 2.3 The User Interface 2.3.1 Task Bar 2.3.2 Icons 2.3.3 Menu 2.3.4 Running an Application 2.4 Operating System Simple Setting 2.4.1 Changing System Date And Time 2.4.2 Changing Display Properties 2.4.3 To Add Or Remove A Windows Component 2.4.4 Changing Mouse Properties 2.4.5 Adding and removing Printers 2.5 File and Directory Management 2.5.1 Creating and renaming of files and directories.

UNDERSTANDING WORD PROCESSING- 3.0 Introduction 3.1 Objectives 3.2 Word Processing Basics 3.2.1 Opening Word Processing Package 3.2.2 Menu Bar 3.2.3 Using The Help 3.2.4 Using The Icons Below Menu Bar 3.3 Opening and closing Documents 3.3.1 Opening Documents 3.3.2 Save and Save as 3.3.3 Page Setup 3.3.4 Print Preview 3.3.5 Printing of Documents 3.4 Text Creation and manipulation 3.4.1 Document Creation 3.4.2 Editing Text 3.4.3 Text Selection 3.4.4 Cut, Copy and Paste 3.4.5 Spell check 3.4.6 Thesaurus 3.5 Formatting the Text 3.5.1 Font and Size selection 3.5.2 Alignment of Text 3.5.3 Paragraph Indenting 3.5.4 Bullets and Numbering 3.5.5 Changing case 3.6 Table Manipulation 3.6.1 Draw Table

3.6.2 Changing cell width and height 3.6.3 Alignment of Text in cell 3.6.4 Delete / Insertion of row and column 3.6.5 Border and shading.

USING SPREAD SHEET- 4.0 Introduction 4.1 Objectives 4.2 Elements of Electronic Spread Sheet 4.2.1 Opening of SpreadSheet 4.2.2 Addressing of Cells 4.2.3 Printing of Spread Sheet 4.2.4 Saving Workbooks 4.3 Manipulation of Cells 4.3.1 Entering Text, Numbers and Dates 4.3.2 Creating Text, Number and Date Series 4.3.3 Editing Worksheet Data 4.3.4 Inserting and Deleting Rows, Column 4.3.5 Changing Cell Height and Width 4.4 Formulas and Function 4.4.1 Using Formulas 4.4.2 Function
Yoga Therapy

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| Placement Semester | Semester I |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Introductory Mathematics |
| Course Code | MSC2123S106T |
| Course Type | Elective |
| Credits | 6 |
| Hours per Semester | 60 |

Set Theory

Introduction to sets and elements, Universal, and empty sets, subsets. Venn diagrams, Set operations and algebra of sets, ordered sets, cartesian product of sets, Classes of sets, power sets and partition. Relations; product sets, equivalence relations, partial ordering relations. Logarithms- Definition and laws regarding product, quotient, power and change of base. Introduction to complex numbers; algebra of complex number, modulus and conjugate of a complex number. Introduction to Matrix: types, Order and transpose of matrix. Operations on matrix; addition, subtraction, multiplication. Associative and distributive laws of matrix, Inverse of Matrix and matrix division; determinant of a matrix, Eigen values and Eigenvectors of matrix.

Differential Calculus

Derivative of a function, Concept of limit, Continuity, Differentiation, Maxima and Minima of a function. Introduction to Partial Differentiation. Integral Calculus: The Idea of the Integral, The Definite Integrals, Indefinite Integrals, Area under curve. Trigonometric ratios, De Moivre's theorem. 21 The general equation of a Straight line, slope of a line, intercepts of a line, Angle between two lines, Intersection of two lines, The general equations of a Circle, Parabola, Ellipse, Hyperbola, Cylinder, Cone and Sphere.

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| Placement Semester | Semester I |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Practical & Viva |
| Course Code | MSC2123S107P |
| Course Type | Practical/Ability Enhancement |
| Credits | 7 |
| Hours per Semester | 210 |

Anatomy

Superior Extremity

- (1) Demonstrations on dissected specimens of upper limb.
- (2) Osteology: clavicle, scapula, humerus, radius, ulna, articulated hand, order of carpal bones.
- (3) Surface anatomy

Inferior Extremity

- (1) Demonstration on dissected specimens of lower limb
- (2) Osteology: Hip bone, femur, tibia, fibula, articulated foot (Identification of tarsal and major muscle attachments).
- (3) Surface Anatomy

Abdomen & pelvis

- (1) Abdominal viscera, Viscera of pelvis and blood vessels.
- (2) Osteology: lumbar vertebrae, sacrum, bony pelvis

Thorax

- (1) Demonstration on cadaver of thoracic wall, mediastinal structure, Heart, Lungs.
- (2) Osteology: Sternum, Ribs (only general features), Thoracic Vertebrae (Identification, general features).

Head & Neck

- (1) Demonstration on cadaver of oral cavity, nasal cavity, pharynx, larynx, sagittal sections of head & neck, muscles of face and triangles of neck.
- (2) Cranial bones (Identification of individual bone with general features), Base of skull : different foramina in relation to cranial nerves, Cranial fossae and their relation to brain and Hypophysis cerebri, , Cervical vertebrae.
- (3) Surface anatomy.

Yoga Therapy

(4) Radiological anatomy.

Neuroanatomy

(1) Demonstration of gross specimens of spinal cord, brainstem, cerebellum, cerebrum and meninges, Identification of cranial nerves emerging from brain and brainstem

Histology

(1) Epithelium (Simple, Compound)

(2) Connective tissue (Cartilage & Bone)

(3) Muscle (smooth & skeletal)

(4) Nervous tissue (nerve trunk, spinal cord, cerebellum, cerebrum, dorsal root ganglion, sympathetic ganglion)

(5) Blood vessels (Large & medium sized arteries and vein)

Yoga Practices

Unit – I Breathing Practices

- Hands stretch breathing
- Ankle stretch breathing
- Rabbit breathing
- Shashankasana breathing
- Instant Relaxation Technique

Unit – II Loosening exercises

- Jogging
- Forward and Backward bending
- Side bending
- Twisting
- Pavanamuktasana Kriya
- Quick relaxation technique

Unit – III Surya Namaskara

Unit – IV Yoga Asana

- Standing Asanas
- Sitting Asanas
- Prone Asanas
- Supine Asanas

Unit – V Pranayama Practices and preparation & Kriya

- Kapalabhati and sectional breathing
- Surya, Cahndra Anuloma Viloma, Nadishodhana, Shitali, Sitkari, Sadanta
- Bhramari and Nadanusandhana

Yoga Therapy

Kriya –

1. Dhauti : Vastra Dhauti, Daëða Dhauti – Once in fifteen days Neti : Ghâta Neti and Dugdha Neti
2. Nauli : Madhyam Nauli, Väma Nauli, Dakñina Nauli and Nauli Kriyâ
3. Kapâlabhâti : Vâtkrama Kapâlabhâti, Çétkrama, and Vyutakarma Kapâlabhâti
4. Çâikhaparakñâlana : Laghu and Pürëa Çâikhaparakñâlana.

Text Book: 1. Himalaya, Swami Vivekananda Yoga Prakasana, Bangalore, 2000 2. Swami Satyananda Saraswati, Asana, Pranayama, Mudra, Bandha, Bihar Yoga Bharati, Munger, Bihar, India.

Reference Books:

1. Swami Satyananda Saraswati : Asana, Pranayama, Mudra, Bandha (Yoga Publications Trust, Munger, Bihar, India).
2. Swami Muktibodhananda Saraswati : Hatha Yoga Pradeepika, Yoga Publications Trust (Munger, Bihar, India) .
3. Dr R Nagarathna (2014). Yoga for Promotion of Positive Health, SVYP, Bangalor.

M.Sc. Yoga Therapy

SEMESTER II

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|----------------------------|--------------------|
| Placement Semester | Semester II |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Physiology |
| Course Code | MSC2123S201T |
| Course Type | Core |
| Credits | 7 |
| Hours per Semester | 70 |

Unit-1: Cell & Tissues

- i. Homeostasis
- ii. Transport across cell membrane
- iii. Cell cycle and its regulation
- iv. Cell differentiation and proliferation
- v. Structure and function of epithelial -simple and compound
- vi. Connective -connective tissue proper, skeletal and vascular
- vii. Muscular -Skeletal, involuntary and cardiac
- viii. Nervous tissues-Myelinated neuron and Non myelinated neuron

Unit-2: Digestive system, Nutrients and their metabolism

Pedagogy -Oral talk with Chalk with Q & A Session, PPT: video; students should be encouraged to prepare working models of different systems like digestive system.

- i. Physical digestion-Mastication, swallowing, peristalsis
- ii. Chemical digestion-Digestion of carbohydrate, protein and lipid
- iii. Absorption of carbohydrate, fats and protein
- iv. Fats
- v. Protein
- vi. Carbohydrates
- vii. Minerals
- viii. Vitamins

Unit-3: Respiratory system & Cardiovascular system

Pedagogy -Oral talk with Chalk with Q & A Session, PPT: video; students should be encouraged to prepare working models of different systems like Respiratory, Cardiovascular etc

- i. Pulmonary ventilation
- ii. Mechanism of breathing(Expiration and inspiration)
- iii. Transport of respiratory gases(transport of oxygen and transport of carbondioxide)
- iv. Regulation of respiration
- v. Composition and function of blood –Plasma, RBC, WBC and Platelet
- vi. Function of haemoglobin
- vii. Types of WBC
- viii. Blood groups and their importance
- ix. Mechanism of blood clotting
- x. Organisation of systemic and pulmonary circulation
- xi. Cardiac output and cardiac cycle
- xii. Blood pressure and regulation of blood pressure

Unit-4: Endocrine system and excretory system

Pedagogy- Oral talk with Chalk with Q & A Session, PPT: video; students should be encouraged to prepare working models of different systems like excretory.

- i. Function of important of endocrine gland (Pituitary, Adrenal, Thyroid, Parathyroid, Pancreas)
- ii. Function of GI tract hormones
- iii. Mechanism of hormone action
- iv. Mechanism of urine formation- Ultra-filtration, selective re-absorption, tubular secretion
- v. Micturition

Unit-5: Nervous system & Special senses

Pedagogy: Oral talk with Chalk with Q & A Session, PPT: video; students should be encouraged to prepare working models of different systems like ear, eye etc

- i. Introduction to nervous system,
- ii. Classification of nerve fibres,
- iii. Nerve conduction synaptic transmission,
- iv. Receptors & neural functions of retina,
- v. Colour vision, Visual pathways,
- vi. Auditory pathways

- vii. Primary taste sensations, Taste buds, Perception of taste,
- viii. Peripheral olfactory mechanisms,
- ix. Olfactory pathways, Olfactory perception

Recommended books:

1. Brizlani – Anatomy and Physiology for Nurses
2. Ross and Wilson – Anatomy and Physiology
3. Elanie Nicpon Marieb- Human anatomy and physiology

Reference books:

1. C. C. Chattarjee- Human physiology
2. Choudhary- Medical physiology

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| Placement Semester | Semester II |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Yoga for prevention and promotion of health |
| Course Code | MSC2123S202T |
| Course Type | Core |
| Credits | 7 |
| Hours per Semester | 70 |

Unit -1: Introduction

(Talk with PPT: Students should be asked to correlate their experiences of practical to find out how they are improving their stamina and eye sight . Students having sight problems should be encouraged to follow the procedure to correct their refractive error. Students should be encouraged to watch the video made by MGUMST on these topics)

Importance of prevention of health problems and promotion of positive health. Identification of different systems of body to strengthen to prevent personality hazards and to promote positive personality.

- Yoga for Stamina building

Introduction, Body systems in improving physical stamina, Physiology of muscle action, Physical stamina according to yoga, Yoga practices for physical stamina development.

- Yoga for Eye Sight improvement

Introduction, Structure and function of eye, problems of eye where Yoga can help, Yoga for refractive errors, Eye problems and their yogic solution, Eye sight improvement and the total insight, Yoga practices for eye sight improvement.

Unit – 2:

- Yoga for IQ Development

Introduction, Intelligence and Intelligence quotient (IQ), Concept of Development of intelligence according to Yoga, Concept of Intelligence quotient and Intelligence according to Yoga, Development of Intelligence, Using intelligence in the right direction for the growth, Yoga practices for IQ development.

- **Yoga for Voice Culture**

Introduction, Anatomy and Physiology of the vocal system, Causes of injury to the vocal system, vocal disorders and voice disorders, Voice culturing, developing musical talents, Voice culture for developing oration, Yoga practices for voice culture.

Unit –3:

Pedagogy -Talk with PPT: Students should be asked to correlate their experiences of practical to find out how they are improving their Relaxation levels and creativity. Students having stress/lacking creativity problems should be encouraged to follow the procedure and correct. Students should be encouraged to watch the video made by MGUMST on these topics. Stress scores can be measured at the beginning and end of the semester.

- **Yoga for Stress Management**

Introduction, Understanding stress, Physiological changes due to stress, Stress management, Yoga practices for stress management.

- **Yoga for Creativity Development**

Creativity and intelligence, silence the source of creativity, Creativity development – Yogic approach, Layers of silence and the siddhis, How to use the sidhis? , Yoga practices for creativity development.

Unit – 4:

Pedagogy - Talk with PPT: Students should be asked to correlate their experiences of practical to find out how they are improving their Relaxation levels and creativity. Students having stress/lacking creativity problems should be encouraged to follow the procedure and correct. Students should be encouraged to watch the video made by MGUMST on these topics. Students can be asked to mark their anger levels on an analogue scale at the beginning and end of the semester. Students can be asked to mark their Ego levels on an analogue scale at the beginning and end of the semester.

- **Yoga for Anger Management**

Introduction, steps in anger management, bodily reactions with anger, Yoga for anger management - a move from limbic brain to cerebral cortex, how yoga works for anger management, Yoga practices for anger management.

- **Yoga for Ego and Greed Management**

Introduction, psychologists view about ego, Ego according to Yoga, Culturing of ego for building social harmony, the right direction, Yoga practices for Ego and Greed management.

Unit – 5:

Pedagogy - Talk with PPT: Students should be asked to correlate their experiences of practical to find out how they are improving their Relaxation levels and creativity. Students having less

memory/lacking concentration problems should be encouraged to follow the procedure and correct. Memory and concentration levels of all the students can be measured at the beginning and end of the semester. Students should be encouraged to watch the video made by MGUMST on these topics. Stress scores can be measured at the beginning and end of the semester.

- **Yoga for Memory Development**

What is memory? Which memories to be maintained? Memory development not merely memory enhancement; Antarindriyas; Patanjalis def of smriti (memory), Types of memory,

Improving Good memories, erasing memories about calamities, Problems /diseases related memory

- **Yoga for concentration development**

Ekagrata(concentration) Vs Chanchalata (randomness), role of concentration in day to day activity, neural correlates of concentration, problems of concentration, yoga for improvement of concentration and Yoga for removing problems of concentrations.

References:

1. Sampoorana Yoga videos - SVYP
2. Sampoorana Yoga Lecture notes.

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| Placement Semester | Semester II |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Sanskrit Bhasha Vijnanam |
| Course Code | MSC2123S203T |
| Course Type | Core |
| Credits | 7 |
| Hours per Semester | 70 |

Unit-1: Introduction to Language

Pedagogi:

- i. Introduction to Language and subject
- ii. *Devanāgarī* script - Alphabets, i.e. vowels, consonants, vowels & consonants combination
- iii. Two consonant combinations, special conjunct consonants and their pronunciation associated with their articulation. Formation of writing.
- iv. Introduction to *Saṅskṛta* Grammar, Story of *Pāṇini* and his works.
- v. Concept of place of Letters & Mechanism of birth of each letter.
- vi. Basic rules for recognition of Nouns and Collection of *Saṅskṛta* words in genders.

Unit-2:

Pedagogy: Introduction to Genders – Masculine, Feminine and Neuter genders.

- i. 24 forms of a noun in all genders and its declensions; practice of other similar declensions. Usage of the 24 forms of all nouns.
- ii. Verb roots with meaning. Nine forms of verbs for three persons and three numbers. Practice all the verb roots and their forms for correct pronunciation. Usage of prefixes and how they change the meaning of the verb root and how to find them in the dictionary.
- iii. Pronouns: Introduction to pronouns; declensions of pronouns; corresponding translations of pronouns into English; forming sentences with pronouns; Different aspects of pronouns being used as demonstrative pronouns and as interrogative pronouns and details of distance specification.
- iv. Questioning words with its 24 declensions in all genders and practice of all of them with Nouns and Pronouns.
- v. Introduction to write a simple sentence. Sentences in singular, dual and plural. Practice of question and answers.

Unit- 3:

Pedagogy:

- i. Prepositions and its meaning with usage in sentence, asking question and answers.
- ii. Introduction to time and its all variations.
- iii. Practice of Numbers 1-100 with writing practice with *Saàskâta* symbols.
- iv. Days in *Saàskâtam* with question and answers.
- v. Introduction to Tense – Present, Past and Future tenses. Practice of conversion of one tense into another tense.
- vi. Introduction to cases and its meaning with questions. Practice of cases.

Unit- 4:

Pedagogi: Students will be encouraged to take up a topic each and write an essay(at least 10 sentences) on that. Every student will be made to bi-heart at least 10shubhashita, students will be encouraged to enact simple dramas in samskritam)

- i. Paragraph writing on specific topic. Using all nouns, pronouns, prepositions, time, days,number etc.
- ii. Introduction of *Saàskâta* literature and its vastness. Specialty and beauty of *Saàskâta* language with respect to some verses from different Poetry, prose and dramas.
- iii. Glimpse of Science in *Saàskâtam* with reference to *Vimānika Çāstra*, *Gaëita Çāstra* etc.
- iv. Reading and writing practice with the help of stories and very basic texts in *Saàskâtam*.

Unit- 5: ACTIVE AND PASSIVE VOICE

Pedagogy: (Chalk and talk and PPT)

- i. The Two Voices
- ii. Rules regarding Active and Passive Voice
- iii. Change of Voice in Tenses
- iv. Change of Voice in Affirmative, Negative and Interrogative sentences

Recommended Books:

1. Samskrita Bharati published books & Flash cards.
2. Sarala book published by Samskrita Bharati, Bangalore.
3. Sugama book published by Samskrita Bharati, Bangalore.
4. Sukhada book published by Samskrita Bharati, Bangalore

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| Placement Semester | Semester II |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Database Management System |
| Course Code | MSC2123S204T |
| Course Type | Elective |
| Credits | 6 |
| Hours per Semester | 60 |

Introduction: - Data base system concepts, Comparison between traditional file system and DBMS, Database Users, Data models, schemes and instances, Data independence, 3-level architecture of DBMS, Overall data base structure. Data modeling using Entity Relationship Model: - ER model, mapping constraints, Concept of super key, candidate key, primary key, Generalization, aggregation, reducing ER diagrams to tables. Relational Data Model: concepts, integrity constraints, relational algebra, SQL queries.

Data Base design: - Functional Dependency and its types, normal forms: first, second, third and BCNF, multi-valued dependency, fourth normal form, join dependency and fifth normal form. Steps in database design.

Transaction processing: Introduction, ACID properties, Concurrency control techniques: Locking techniques, Time stamping, Optimistic approach, Multi-version. Management of deadlocks, Query processing and optimization.

Recovery, Integrity and security of Databases. Distributed Database systems: Introduction, Fragmentation, Replication, Transparency, Consistency and Concurrency control, Homogeneous Vs Heterogeneous systems. Advanced topic in databases: temporal database, spatial database, data mining, data warehousing and its applications.

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| Placement Semester | Semester II |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Data Analysis & Visualization |
| Course Code | MSC2123S205T |
| Course Type | Elective |
| Credits | 6 |
| Hours per Semester | 60 |

Introduction to Data Analytics: Overview of data analytics and its applications in various industries, Understanding the data analytics process and life cycle, Exploring different types of data (structured, unstructured, big data)

Data Collection and Preprocessing: Methods for data collection and data sources (surveys, API s, web scraping), Data cleaning and preprocessing techniques (missing data handling, data transformation, outlier detection), Data integration and data quality assessment

Exploratory Data Analysis (EDA): Descriptive statistics and data summarization techniques, Data visualization techniques (bar charts, histograms, scatter plots, box plots), Data exploration using statistical measures (correlation, distribution analysis)

Data Mining Techniques: Introduction to data mining concepts and algorithms, Association rule mining, Clustering algorithms (k-means, hierarchical clustering), Classification algorithms (decision trees, random forests, support vector machines)

Predictive Analytics: Predictive modeling techniques, Evaluation and validation of predictive models, Time series analysis and forecasting

Data Visualization: Principles of effective data visualization, Visualization tools and libraries (Tableau, ggplot, D3.js)

Interactive and dynamic visualizations, Visualizing geospatial and network data, Data visualization in Python and R.

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| Placement Semester | Semester II |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Internet Technology |
| Course Code | MSC2123S206T |
| Course Type | Elective |
| Credits | 6 |
| Hours per Semester | 60 |

Introduction to Internet Technology, History and evolution of the Internet, Internet architecture and protocols, Internet service providers (ISPs) and their role, Internet Communication Protocols Transmission Control Protocol/Internet Protocol (TCP/IP),Hypertext Transfer Protocol (HTTP) and HTTPS, Domain Name System (DNS),Simple Mail Transfer Protocol (SMTP) and Post Office Protocol (POP),Internet Security, Introduction to cybersecurity, Secure Socket Layer (SSL) and Transport Layer Security (TLS)

E-commerce and Online Business, E-commerce fundamentals and models, Online payment systems, Digital marketing and search engine optimization (SEO),Privacy and legal considerations in online transactions, CloudComputing and Internet Services

Internet of Things (IoT) and its applications , Social Media and Online Collaboration ,Social media platforms and their features, Online collaboration tools (e.g., project management, video conferencing),Social media marketing and analytics, Emerging Trends in Internet Technology

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| Placement Semester | Semester II |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Practical & Viva |
| Course Code | MSC2123S207P |
| Course Type | Practical/Ability Enhancement |
| Credits | 7 |
| Hours per Semester | 210 |

Physiology

- (a) Hematology: RBC count, WBC count, differential count. ESR, Bleeding & Clotting time, Estimation of hemoglobin, Blood groups.
- (b) Human Physiology: Examination of (a) Respiratory system (b) heart and arterial pulse (c) deep and superficial reflexes (d) cranial nerves (e) motor system (f) sensory system including higher function (g) measurement of blood pressure.
- (c) Effect of Exercises on body physiology.

prevention and promotion of health

Unit 1:

Pedagogy - 8 step method. Students will be asked to go to the nearby village school and teach these to the children in the school)

Yoga practices for Stamina Building: [6Hours]Sithilikarana Vyayama

- Simple Jogging ---Mukha Dhouti
- Forward jogging
- Backward jogging
- Side Jogging
- Twisting
- Rotation of arms
- Forward & backward bending
- Tiger Stretch
- Pavana Muktasana
- Back stretch
- Side Bending
- Neck Movement

Breathing Practices

- Hands in and out breathing
- Hand stretch Breathing
- Ankle stretch Breathing
- Dog breathing
- Rabbit breathing
- Tiger Stretch
- Tiger Breathing
- Shavasana

Surya Namaskara 12 steps
Surya Namaskara 10 steps

Asanas

- Ekapadasana
- Utthita hasta padangusthasana
- Merudandasana
- Santolanasana

Kriyas

- Agnisāra
- Kapalabhati
- Both nostril
- Alternate Nostril

Pranayama

Sūrya Anuloma Viloma

Meditation

- Sun
- Hanuman
- Yoga for Eye sight improvement:
Preparatory eye exercises:

Up and Down movements of the eye ball

Right and left

Diagonal (right up-left-down, Left up- right down)

Asana:

Padahasthasana
Ardhacakrasana

Eye Relaxation Techniques:

Palming – 3 stages of palming
Hand cup palming –hold

Press and release palming – 5 times
Palming with Bhramari – 3 rounds

(Kriyas):

Eye cup Washing – 1 Massaging, tear sac massaging
Blinking,

Jalaneti Washing using the palm

Pranayama:

Relax in QRT – abdominal breathing
Nadi

suddhi Bhramari for head relaxation

Trataka:

Nasagra – (straight finger)- Palming 1
Urdhvamukha – Palming 1

Adhomukha – (horizontal Finger) – Palming 1 Vama Jatru – Palming 1

Dakshina Jatru trataka – Palming 1

Bhrumadhya trataka – (Bent Index Finger) – Palming 1 Jyothi trataka:

Jyothi Trataka 1 eye at a time – palming 1 Both eyes trataka – three steps

1. Multiple flames – merge them into one flame –concentrate on the sharpness of the margins of the flame
2. Brightest part of the flame – Recognise the gradation in the intensity of the light
3. Wick of the candle
4. Blue centre of the flame
5. Aura of the flame

Antar Dharana Trataka – Imagine jyothi in the centre of the skull focussing the eyeball inside skull

Surya Trataka: Sunrise and sunset – Never look at white light

Moon trataka and star trataka Dharana on Jyothi and meditation

Relaxed eyes in action – relax the frown on the forehead; Keep a smile on the face always

Neck muscle relaxation – neck back bending Action in Relaxation

Unit 3: Pedagogy - 8 step method. Students will be asked to teach the practices they learnt to children in the nearby village school.

Yoga practices for Stress management:

Step 1: Starting prayer

Step 2(A): Instant Relaxation Technique (IRT) Step 2 (B): Linear awareness

Step 3: Centering Step 4: Standing Asana Ardhakati cakrasana

Step 5: Quick Relaxation Technique (QRT)

Phase I - Observing the abdominal movements Phase II - Associate with

breathing Phase III - Breathing with feeling **Step 6: Sitting Asanas Vajrasana**

Sashankasana Ustrasana

Step 7 : Deep Relaxation Technique **Yoga**

for creativity development Loosening

Exercises

- Alternate Leg Rising in Standing
- Padasancalana
- Tiger Stretch (Prabheda)
- Baby Walk
- Makarasana Cycling
- Clap Jumping

Yogasanas

- Veerasana
- Ardha chandrasana
- Yoga Mudra
- Karnapidasana

Exercises:

1. Hands stretch breathing
2. Straight leg raising breathing
3. Sashankasana breathing

Pawana Muktasana kriya

IRT

Yogasana:

Vrikshasana Garudasana Padahastasana Ardha cakrasana Paschimottanasana Supta virasana

Viparita Karani Matsyasana

QRT

Pranayama:

Right nostril Kapalabhati (Kb) Both nostril Kb

Nadi Shudhi

Ref: Sampoorna Yoga Video CDs - SVYP Sampoorna Yoga Teachers notes for practical.

M.Sc. Yoga Therapy
Semester III

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|----------------------------|----------------------|
| Placement Semester | Semester III |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Patanjali Yoga Sutra |
| Course Code | MSC2123S301T |
| Course Type | Core |
| Credits | 7 |
| Hours per Semester | 70 |

Unit-1: SamādhiPāda

Pedagogi: (Talk with PPT; Sloka chanting Lead and follow twice; students will be encouraged to biheart the slokas and also draw pictures for meaning of slokas; also will be encouraged to practice what is given)

- i. What is Yoga?
- ii. Culmination of Yoga
- iii. *Vātti* and its classifications
- iv. Necessity of Abhyāsa&Vairāgya
- v. Foundation of Abhyāsa
- vi. Lower & higher form of Vairagya
- vii. Definition of Samprajīaand Asamprajīa Samādhi
- viii. Definition & attribute of Içvara
- ix. Praëava and Sādhana for Içvara
- x. Result of Sādhana
- xi. Obstacles in the path of Yoga

Unit-2: Sādhana pāda

Pedagogy-Talk with PPT; Sloka chanting Lead and follow twice; students will be encouraged to biheart the slokas and also draw pictures for meaning of slokas; also will be encouraged to practice what is given.

- i. Discipline for Sādhana
- ii. Kleñās – Avidya, Asmita, Rāga, Dveça and Abhiniveça
- iii. Modification of the Kleñās
 - a. Meditation
- iv. Karmāçaya and its fruits

- v. Pleasure and Pains are both painful
- vi. Four stages of Guëäs
- vii. Puruñña and Prakâti
- viii. Definition of Häna - Stages of enlightenment
- ix. Necessity of YogaPractice
- x. Bahiraiga Yoga

Unit-3:Vibhüti

Pedagogy-Talk with PPT; Sloka chanting Lead and follow twice; students will be encouraged to biheart the slokas and also draw pictures for meaning of slokas; also will be encouraged to practice what is given. Will be clearly explained how vibhütis should be used only for benefit of the society and self growth and not get lured.

- i. Antaraiga Yoga kaivalya siddhis
- ii. Saâyamaand its results, applications
- iii. Pariëäma(9-13) –Siddhis
- iv. Attainment of Kaivalya
- v. Sources of Siddhis
- vi. Influence of Karma

Unit -4: Kaivalya

Pedagogy-Talk with PPT; Sloka chanting Lead and follow twice; students will be encouraged to remember the slokas and also draw pictures for meaning of slokas; also will be encouraged to practice what is given.

- ii. Manifestation, Source and disappearance of Väsanäs
- iii. Theory of perception (15)
- iv. Mind and its manifestation (16-23)
- v. Heading to Kaivalya (27-34)

Recommended books:

1. Science of Yoga- Taimini
2. Four Chapters on Freedom – Sw. Satyananda Saraswati
3. Patanjali's Yoga Sutras – Dr H R Nagendra, SVYP

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| Placement Semester | Semester III |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Fundamentals of Integrative Medicine |
| Course Code | MSC2123S302T |
| Course Type | Core |
| Credits | 7 |
| Hours per Semester | 70 |

Unit – 1: Pedagogy - Talk with PPT

(A) Definition of Ayurveda

- i. Definition of Vedas – Introduction of division of Vedas.
- ii. Definition of Ayurveda – Different types of Ayu and chronology of Ayurveda.

(B) Concept of Doshas, Dhatus, Malas and Agni

- i. Concept of doshas – Vata, Pitta and Kapha
- ii. Concept of dhatus and malas
- iii. Concept of agni – Types of agni and concept of Ama.

Unit-2:

Pedagogy -Talk with PPT

(A) Concept of Chikitsa

- i. Shishyaguna – Concept of Chikitsachatuspada,
- ii. Qualities of royal physician.
- iii. Dinacharya, rutucharya and rutosandhi- features and significance.

(B) Concept of health and disease

- i. Concept of health according to sushruta.
- ii. Concept of disease and its classification.
- iii. Concept of agryasangrahas

(C) Concept of drugs in Ayurveda and its formulation

- i. Concept of drugs in ayurveda, different types of formulations and concept of treatments
- ii. in ayurveda.
- iii. Panchakarma and its procedures.

Unit – 3:

Pedagogy-Talk with PPT. Students will be taken to treatment centre and made to observe and practice the techniques.

- (A) Basis of Naturopathy
 - i. Definition of Nature Cure
 - ii. History of Naturopathy
 - iii. Principles of Naturopathy
- (B) Diet and Fasting
 - i. Basis of Diet and its type
 - ii. Fasting Therapy
 - iii. Type of Fasting
 - iv. Importance of Fasting
 - v. Precaution to be taken
 - vi. Indications
 - vii. Contraindications
- (C) Hydrotherapy and Mud Therapy
 - i. Definition Mud Therapy
 - ii. Types of Mud
 - iii. Preparation and Method of Application
 - iv. Benefits
 - v. Indication and Contraindication
 - vi. Introduction to Hydrotherapy

Unit-4:

- i. Physiological and Therapeutic Properties
- ii. Hydrotherapy Interventions: Hip Bath, Steam Bath, Enema, Packs, Compress, Fomentation.

Pedagogy- Students will be taken to treatment centre and made to observe and practice the techniques.

- (A) **Manipulative Therapy**
 - i. Introduction to Manipulative Therapy
 - ii. Types of movement
 - iii. Benefits
 - iv. Indication and Contraindication
- (B) **Chromo and Magneto Therapy**
 - i. Introduction to Chromo therapy
 - ii. Physiological and Psychological Effect of Color
 - iii. Introduction to magneto therapy
- (C) **Physiological and Psychological Effect of magnet Aroma Therapy and Acupressure**
 - i. Introduction to Aromatherapy
 - ii. Modes of Application
 - iii. Indication and Contraindication
 - iv. Basis of acupressure and reflexology

Recommended books:

1. Introduction to Ayurveda and Yoga by David Frawley.
2. AshtangaSangraha by Vagbhata.
3. Principles of Naturopathy- Dr. Bhakru

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| Placement Semester | Semester III |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Hatha Yoga Pradipika |
| Course Code | MSC2123S303T |
| Course Type | Core |
| Credits | 7 |
| Hours per Semester | 70 |

Unit-1: Hatha Yoga its Philosophy and Practices

- Hatha Yoga, its meaning, definition, aims & objectives, misconceptions, obstacles(vighna) and helps (sahāyaka) in Haöha Yoga as in Hatha Yoga Pradépikā.
- The Origin of Hatha Yoga, Hatha Yogic Literature, Hatha Yogic Practices as explained in Hatha Yoga Pradépika (HYP).
- Concept of Mata, Rules & Regulations to be followed by the Hatha Yoga Practitioner, concept of Mitāhāra, Pathya and Apathya.
- Hatha Yogic Paramparā. Brief introduction to Great Hatha Yogés of Nātha Cult and their contributions to Yoga. Relationship between Hatha Yoga & Rāja Yoga.

Unit-2: Hatha Yoga Practices: Shodhana-Kriyās and Āsanas

Pedagogy-Talk with PPT; slokas lead and follow twice; practice and experience every technique as and when learnt.

- Shodhana-kriyās, Shodhana-kriyās in Hatha Yoga Pradépika & in Gheranda Samhitā and their techniques, benefits and precautions.
- Role of Shodhana-kriyās in Yoga Sādhanā and their importance in Modern day life.
- Yogāsana: its definition, salient features and importance in Haöha Yoga Sādhanā.
- Āsanas in Hatha Yoga Pradépikā and Gheranda Samhitā: their techniques, benefits, precautions and importance.

Unit-3: Hatha Yogic Practices: Prānāyāma, Bandhas and Mudrās

Pedagogy- Talk with PPT; slokas lead and follow twice; Biheart slokas; practice and experience every technique as and when learnt.

- Prānāyāma– Mechanism of correct breathing, Yogic deep breathing, Concept of Pūraka, Kumbhaka and Recaka.
- The concept of Prāna, Kinds of Prana and Upa-prānas, Prānāyāma and its importance in Hatha Yoga Sādhanā, Nādi shodhana Prānāyama, its technique and importance, Pre-requisites of Prānāyāma.
- Prānāyāma practices in Hatha Yoga pradépikā and Gheranda Samhitā, their techniques,

- benefits and precautions, Hatha Siddhi Lakṣaṇam.
- iv. Bandhas and role of Bandhatrayas in Yoga Sādhanā.
 - v. Fundamental Mudrās in HYP. and G.S, their techniques, benefits and precautions.

Unit-4: Hathayoga Practices: Pratyāhāra, Nādānusandhāna

Pedagogy- Talk with PPT; slokas lead and follow twice; Biheart slokas; practice and experience every technique as and when learnt.

- i. Concept of Pratyāhāra, Dhāraṇā and Dhyāna in Gheraṇḍa Samhitā and their techniques & benefits.
- ii. Concept of Samādhi in Haṭhayoga Pradīpikā, Samādhi Lakṣaṇam and Haṭha Yoga Siddhi Lakṣaṇam.
- iii. The concept of Nāda, Four Avasthās (stages) of Nādānusandhāna, and its Siddhis.
- iv. Svara, Importance of Svarodaya-jīāna in Yoga Sādhanā with special reference to Jīāna Svarodaya and Ćiva Svarodaya.

Recommended books:

1. Swami Satyananda Saraswati, Hatha Yoga Pub: BSY Munger.

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| Placement Semester | Semester III |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Human Genetics and Disease |
| Course Code | MSC2123S304T |
| Course Type | Elective |
| Credits | 6 |
| Hours per Semester | 60 |

Understanding the genetic basis behind human disease , human chromosome structure, human karyotype, banding techniques, chromosome identification and nomenclature (ISCN).

Classical genetics , monogenetic traits, autosomal dominant, autosomal recessive, sex linked dominant, sex linked recessive and sex influenced traits.

The impact of consanguinity in causing sex linked anomalies (haemophilia, colour blindness and Duchenne Muscular Dystrophy) in human population. chromosomal disorders, structural and numerical chromosomal anomalies (Klinefelter syndrome, Down's syndrome, Turner syndrome, Achondroplasia), inborn errors of metabolism (Phenylketonuria (PKU), Alkaptonuria, Albinism, Galactosemia), haemoglobinopathies, Thalassemiasyndromes, multifactorial disorders (diabetes, schizophrenia, huntington disease).

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| Placement Semester | Semester III |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Hospital Organization and Management |
| Course Code | MSC2123S305T |
| Course Type | Elective |
| Credits | 6 |
| Hours per Semester | 60 |

Definition of management; Productivity, Efficiency and Effectiveness; Managerial Skills, Evolution of management thought: Frederic W. Taylor's scientific management, Henry Fayol's principles of management, concept of bureaucracy, human relations approach, Behavioral approach, systems theory of organization, contingency theory of organization, management by objectives (MBO),

Management functions: Nature of management process and managerial functions –

Planning: Types (mission, purpose, objective or goals, strategies, policies, procedures, rules, programs, budgets) Step-by-step planning, Decision Making

Organizing- Mean in grand purpose, Types: a) formal and informal, functional and matrix, line and staffed) departmentation, Authority & Power, Centralization & Decentralization, Delegation of Authority

Staffing- Recruitment & Selection (Basic

Concepts) Directing Manager vs Leader Motivation

(Concept), Leadership (Concept)

Controlling:

Basic control process, Control as a feedback system, Real-time information and control, Control techniques, Concept of budgeting

Behavioral concepts and theories:, Concept of OB., Challenges and opportunity for OB Motivational Theories, Maslow's Need hierarchy, Theory X and Theory Y,, Two-factor theory, McClelland's theory of Needs, Equity Theory, Expectancy theory

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| Placement Semester | Semester III |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Legal and Medical issues in hospital |
| Course Code | MSC2123S306T |
| Course Type | Elective |
| Credits | 6 |
| Hours per Semester | 60 |

Law and establishment of hospitals-private / public hospitals, legal requirements under medical council Acts. West Bengal Clinical establishment Act and rules 2, 7 (as amended till date).

Essentials of contract Act. Contractual obligations in hospital services - requisites of a valid contract - hospital as 'bailer' - sale and purchase of " goods- duties towards patients - code of ethics- violation legal consequences.

Legal aspects relating to organ transplantation, MTP Act, 1997, Basics of Drugs and Cosmetic Acts, anaesthesia. ESI Act, PNDT Act, AERB, ICMR Guideline of Scientific Research Members, clinical trials.

Legal liability of hospitals- criminal, civil and tortious; liability for negligence, consumer protection law, absolute liability and vicarious liability, legal remedies available to patients: remedies under contract law, tort, criminal law and consumer protection' Act. Medical Jurisprudence.

Medical ethics – basic issues, importance, process of developing and implementing ethics and values in an institution – codes of conduct: Hippocrates oath and declaration of Geneva 2, 6 – NMC regulation – professional conduct, etiquette and ethics.

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| Placement Semester | Semester III |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Practical & Viva |
| Course Code | MSC2123S307P |
| Course Type | Practical/Ability Enhancement |
| Credits | 7 |
| Hours per Semester | 210 |

Unit – 1: Introduction to advanced techniques:

Pedagogy -

- i. Meditation.
- ii. Advancement in Meditation.
- iii. Concept of Païca Koça.
- iv. Advanced techniques.
- v. Personality development.
- vi. Concept of Vyaçõi and Samaçõi.
- vii. Relaxation, awareness and expansion of awareness.
- viii. Role of mind, intellect etc.,
- ix. Different Layers of Silence.

Methods to go to deeper levels of silence. Unit - 2: Mind Imagery Technique

Pedagogy - Mind mapping; Talk with PPT; Practicing with computerized pictures; Practice with instructions; experience and understand.

- i. Introduction to the technique
- ii. Where does this work?
- iii. How to reach deeper layers of silence?
- iv. How Focusing followed by defocusing helps to go deeper?
- v. Observation of Neutral and Active imageries or thoughts.
- vi. Observing OM/God/Sun/Yantra in increasing and decreasing size.
- vii. Visualizing OM/God/Sun/Yantra in increasing and Decreasing Size.
- viii. Observing OM/God/Sun/Yantra flickering with uniform speed.
- ix. Observing OM/ God/ Sun/ Yantra flickering with increasing and decreasing speed.
- x. Observing powerful rays burning unwanted cells.
- xi. Visualizing powerful rays burning unwanted cells.
- xii. Observing soothing rays energizing all cells.
- xiii. Visualizing soothing rays energizing all cells.
- xiv. Full Practice.
- xv. Practice given by the students.

Unit - 3: Mastering Emotions Technique:

Pedagogy - Mind mapping; Practice with instructions; experience and understand.

- i. Thinking and feeling of emotion.
- ii. Types of emotions as softer, stronger, positive and negative.
- iii. Invoking, intensifying and diffusing the emotions
- iv. Pairs of opposites at the physical and emotional levels.
- v. Silence and Sankalpa.
- vi. Full practice.
- vii. Practice given by the students.

Unit - 4: Vijāna Sādhana Kauçala: Pedagogy-Talk with PPT; Practice with instructions; experience and understand.

Happiness analysis to be experimented by students.

- i. Explaining about Vijānamaya Koça.
- ii. Happiness analysis.
- iii. Fear analysis.
- iv. Tamas, Rajas, Sattwa, and Gunātita.
- v. Çreyas and Preyas.
- vi. Recollect the incidences of highest happiness and also incidences of highest fear.
- vii. Analyse each incident of happiness and fear analysis and write.
- viii. List Çreyas activities and Preyas activities in your present life.
- ix. Practice to move from Çreyas to Preyas.
- x. List of Tāmasic, Rājasic and Sātvic activities.
- xi. Practice to move from Tamas to Rajas to Sattva to Gunātita.
- xii. Full practice.
- xiii. Practice given by the students.

Unit- 5: Ānanda Amrita Sinchana: Pedagogy - Talk with PPT; Practice with instructions; Observe the mind.

- i. Importance of pairs of opposites.
- ii. List different pairs of opposites that occur in life.
- iii. Practice to experience them as pairs and observe the changes in the personality.
- iv. List out incidences when bliss is experienced in activity.
- v. List out incidences when bliss is experienced in non-activity.
- vi. List of varieties of people, varieties of places, varieties of incidences and practice to maintain the bliss in all circumstances.
- vii. Carefully observe and start to do every activity with bliss.
- viii. Allow love and bliss to spread all around. Full practice.
- ix. Practice given by students.
- x. Experience writing.

References:

1. Yoga for Cancer by Dr Nagarathna R and Dr Nagendra H R.
2. Taittiriya Upaniñad– Brahmānanda Valli
3. Wisdom from Upaniñad. Patheya Series. Vivekananda Kendra Publication.
4. Patañjali Yoga Sutrās – Dr H R Nagendra, SVYP

M.Sc.Yoga Therapy Semester IV

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| Placement Semester | Semester IV |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Evidence based Yoga Therapy – I |
| Course Code | MSC2123S401T |
| Course Type | Core |
| Credits | 7 |
| Hours per Semester | 70 |

Unit-1: Introduction to common ailments

Pedagogy:

- i. Introduction to stress
- ii. Physiology of stress
- iii. Psychosomatic ailments
- iv. Introduction to Yoga therapy – Adhija Vyadhi concept, IAYT

Unit-2: Respiratory Disorders

Pedagogy:

- i. Introduction to Respiratory disorders
 - a. Brief classification – Obstructive, Restrictive, infectious and inflammatory
 - b. Introduction to Pulmonary function tests and their principles
- ii. Bronchial Asthma
 - a. Definition, Pathophysiology, Classification, Clinical Features,
 - b. Medical Management
 - c. Yogic Management
 - d. Allergic Rhinitis & Sinusitis Definition, Pathophysiology, Classification, Clinical Features,
 - e. Medical Management
 - f. Yogic Management
- iii. COPD
 - a) Chronic Bronchitis Definition, Pathophysiology, Classification, Clinical Features,
 - b) Medical Management
 - c) Yogic Management
- b. Emphysema
 - a) Definition, Pathophysiology, Classification, Clinical Features,
 - b) Medical Management
 - c) Yogic Management

- iv. Infectious Disorders
 - a. Tuberculosis
 - a) Definition, Pathophysiology, Classification, Clinical Features,
 - b) Medical Management
 - c) Yogic Management
 - b. Pneumonia
 - a) Definition, Pathophysiology, Classification, Clinical Features,
 - b) Medical Management
 - c) Yogic Management
 - c. Interstitial Lung Disease / Idiopathic pulmonary fibrosis
 - a) Definition, Pathophysiology, Classification, Clinical Features
 - b) Medical Management
 - c) Yogic Management
 - d. Evidence based Yoga therapy for respiratory disorders

Unit-3: Cardiovascular Disorders

Pedagogy:

- i. Introduction to Cardiovascular disorders
- ii. Hypertension
 - a. Definition, Pathophysiology, Classification, Clinical Feature
 - b. Medical Management
 - c. Yogic Management
- iii. Atherosclerosis / Coronary artery disease
 - a. Definition, Pathophysiology, Classification, Clinical Features
 - b. Medical Management
 - c. Yogic Management
- iv. Ischemic Heart disease – Angina pectoris / Myocardial Infarction/ Post CABG rehab
 - a. Definition, Pathophysiology, Classification, Clinical Features
 - b. Medical Management
 - c. Yogic Management
- v. Congestive Cardiac Failure / Cardiomyopathy
 - a. Definition, Pathophysiology, Classification, Clinical Features
 - b. Medical Management
 - c. Yogic Management
- vi. Cardiac asthma
 - a. Definition, Pathophysiology, Classification, Clinical Features
 - b. Medical Management
 - c. Yogic Management
- vii. Evidence based Yoga therapy for problems of Cardiovascular system

Unit-4: Endocrinal and Metabolic Disorder Pedagogy:

- i. Diabetes Mellitus (I&II)
 - a. Definition, Pathophysiology, Classification, Clinical Features
 - b. Medical Management
 - c. Yogic Management
- ii. Hypo and Hyper- thyroidism
 - a. Definition, Pathophysiology, Classification, Clinical Features
 - b. Medical Management
 - c. Yogic Management
- iii. Obesity
 - a. Definition, Pathophysiology, Classification, Clinical Features
 - b. Medical Management

- c. Yogic Management
- iv. Metabolic Syndrome
 - a. Definition, Pathophysiology, Classification, Clinical Features
 - b. Medical Management
 - c. Yogic Management
- v. Evidence based Yoga therapy for Endocrinal and Metabolic disorders

Unit-5:Excretory System

Pedagogy:

- i. Chronic renal failure
 - a. Causes, clinical features
 - b. Medical management
 - c. Yogic Management
- ii. Renal stones
 - a. Medical management
 - b. Yogic Management
- iii. Irritable bladder
 - a. Medical management
 - b. Yogic Management
- iv. Stress incontinence
 - a. Medical management
 - b. Yogic Management
- v. Evidence based Yoga therapy for problems of excretory system

Recommended books:

1. Yoga for Bronchial Asthma – Dr H R Nagendra, R Nagaratna, SVYP
2. Yoga for Hypertension and Heart Diseases – Dr H R Nagendra, R Nagaratna, SVYP
3. Yoga for Diabetes – Dr H R Nagendra, R Nagaratna, SVYP
4. Yoga for Obesity – Dr H R Nagendra, R Nagaratna, SVYP
5. Integrated approach of yoga therapy for positive health-Dr. R Nagaratha, Dr. H RNagendra

Reference books:

1. Yoga for common disorders- Swami Koormananda Saraswati

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| Placement Semester | Semester IV |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Evidence based Yoga Therapy – II |
| Course Code | MSC2123S402T |
| Course Type | Core |
| Credits | 7 |
| Hours per Semester | 70 |

Unit- 1: Obstetrics and Gynaecological Disorders Pedagogy:

- i. Menstrual disorders: Dysmenorrhea, Oligomenorrhea, Menorrhagia
 - a. Definitions, Pathophysiology, Classification, Clinical Features
 - b. Medical Management
 - c. Yogic Management
- ii. Premenstrual Syndrome
 - a. Definition, Pathophysiology, Classification, Clinical Features
 - b. Medical Management
 - c. Yogic Management
- iii. Yoga for Pregnancy and Childbirth
 - a. Introduction to pregnancy, Complicated pregnancies: PIH, GestationalDM
 - a. Ante-natal care
 - b. Post-natal care
- iv. Infertility-male and female PCOS
 - a. Definition, Pathophysiology, Classification, Clinical Features
 - b. Medical Management
 - c. Yogic Management
- v. Evidence based Yoga therapy for Obstetrics and Gynaecological Disorders

Unit-2: Gastro Intestinal Disorders

Pedagogy:

- i. APD
 - a. Introduction to APD: Gastritis –Acute & Chronic, Dyspepsia, PepticUlcers
 - b. Clinical Features
 - c. Medical Management
 - d. Yogic Management
- ii. Constipation and Diarrhea
 - a. Definition, Pathophysiology, Clinical Features
 - b. Medical Management
 - c. Yogic Management

- iii. Irritable Bowel Syndrome
 - a. Definition, Pathophysiology, Classification, Clinical Features
 - b. Medical Management
 - c. Yogic Management
- iv. Inflammatory Bowel Disease
- v. Ulcerative colitis
 - a. Definition, Pathophysiology, Classification, Clinical Features
 - b. Medical Management
 - c. Yogic Management
- vi. Crohn's diseases
 - a. Definition, Pathophysiology, Classification, Clinical Features
 - b. Medical Management
- vii. Evidence based Yoga therapy for Gastro Intestinal Disorders

Unit-3: Musculo-Skeletal Disorders

Pedagogy:

- i. Back Pain
 - a. Classification of back pain: organic and functional
 - a) Lumbar Spondylosis
 - b) Intervertebral disc prolapse (IVDP)
 - c) Spondylolisthesis
 - d) Spondylitis
 - e) Psychogenic- Lumbago
 - b. Medical Management
 - c. Yogic Management
- ii. Neck pain
 - a. Classification
 - a) Cervical Spondylosis, radulopathy
 - b) Functional neck pain
 - c) Whiplash injury
 - b. Medical Management
 - c. Yogic Management
- iii. All forms of Arthritis
 - a. Rheumatoid Arthritis
 - b. Osteoarthritis
 - c. Psoriatic Arthritis
 - d. Gout
 - e. Medical Management
 - f. Yogic Management
- iv. Muscular dystrophy
 - a. Medical Management
 - b. Yogic Management
- v. Evidence based Yoga therapy for Musculo-Skeletal Disorders

Unit-4: Psychological Disorders

Pedagogy:

- (A) Neurological Disorders:**
 - i. Headaches

- a. Migraine
 - a) Causes, Classification, clinical features
 - b) Medical management
 - c) Yogic Management
- b. Tension headache
 - a) Medical management
 - b) Yogic Management
- ii. Cerebro vascular accidents
 - a. Causes, clinical features
 - b. Medical management
 - c. Yogic Management
- iii. Epilepsy; pain; Autonomic dysfunctions
 - a. Causes, clinical features
- Medical management
- i. Parkinson's disease
 - a. Causes, clinical features
 - b. Medical management
 - c. Yogic Management
- ii. Multiple sclerosis
 - a. Causes, clinical features
 - b. Medical management
 - c. Yogic Management
- iii. Errors of vision of refraction.
 - a. Causes, clinical features
 - b. Medical management
 - c. Yogic Management
- iii. Hearing impairment
 - a. Causes, clinical features
 - d. Medical management
 - e. Yogic Management
- iv. Evidence based Yoga therapy for Neurological Disorders

(B) Psychiatric disorders

Introduction to psychiatric disorders, classification – Neurosis, Psychosis

- i. Neurosis
 - a. Anxiety disorders
 - a) Generalised anxiety disorder
 - b) Panic Anxiety
 - c) Obsessive Compulsive Disorder
 - d) Post-traumatic stress disorder
 - e) Phobias
 - f) Medical Management
 - g) Yogic Management
 - b. Depression
 - a) Dysthymia
 - b) Major depression
 - c) Medical Management
 - d) Yogic Management
- ii. Psychosis
 - a. Schizophrenia
 - b. Bipolar affective disorder
 - c. Medical Management

- d. Yogic Management
- iii. Mental retardation
 - a. Autism
 - b. Attention Deficit Hyperactivity Disorders
 - c. Medical Management
 - d. Yogic Management
- iv. Substance abuse – alcohol, tobacco, cannabis abuse
 - a. Medical Management
 - b. Yogic Management
- v. Evidence based Yoga therapy for Psychiatric disorders

Unit-5: Cancer, HIV and Anaemia

Pedagogy:

- i. HIV - AIDS
 - a. Cause, Pathophysiology, Clinical Features
 - b. Medical management
 - c. Yogic Management
- ii. Autoimmune disorders
 - a. Causes, clinical features, various autoimmune disorders
 - b. Medical management
 - c. Yogic Management
- iii. Cancer
 - a. Causes, clinical features,
 - b. Side effects of Chemotherapy, radiotherapy
 - c. Medical management
 - d. Yogic Management
- a. Anemia
 - a. Classification of anemia
 - b. Medical management
 - c. Yogic management
- iv. Evidence based Yoga therapy for Cancer, HIV and Anaemia

Recommended books:

1. Yoga for Pregnancy – Dr H R Nagendra, R Nagaratna, Dr Shamanthakamani, SVYP
2. Yoga for Digestive Disorders – Dr H R Nagendra, R Nagaratna, SVYP
3. Yoga for Arthritis – Dr H R Nagendra, R Nagaratna, SVYP
4. Yoga for Back Pain – Dr H R Nagendra, R Nagaratna, SVYP
5. Yoga for Depression - Dr H R Nagendra, R Nagaratna, SVYP
6. Yoga practices for Anxiety and Depression – Dr H R Nagendra, R Nagaratna, SVYP
7. Yoga for Cancer – Dr H R Nagendra, R Nagaratna, SVYP
8. Integrated approach of yoga therapy for positive health-Dr. R Nagaratha, Dr. H RNagendra - SVYP

Reference books:

1. Yoga for common disorders- Swami Koormananda Saraswati

Assignments:

The learners shall prepare an assignment on

- i. Compilation of Evidence base for management of any two pathologies with Yoga as a therapeutic measure
- ii. They shall prepare a power point presentation of a scientific paper suggested by the teaching faculty.

Recommended website:

- i. Research publications in Yoga on all concerned topics from peer reviewed journals.
<http://www.ncbi.nlm.nih.gov/pubmed/>

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| Placement Semester | Semester IV |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Yogic Counseling |
| Course Code | MSC2123S403T |
| Course Type | Core |
| Credits | 7 |
| Hours per Semester | 70 |

Unit 1 Introduction to Psychology and Cognitive psychology

Pedagogi: (Talk with PPT. Students should present the benefits and limitations of eachone of the theories)

Definition of mind according to modern science and yoga; comparative understanding of the process of perception, learning, Intelligence, Creativity, memory and emotions according to modern psychology and yoga psychology; A brief understanding of conventional methods of psychotherapy Existential/Humanistic Therapy; Biological Approaches; Psychodynamic Therapy; Behavioural Therapy; Cognitive Therapy.

Unit 2: Yoga for personality development Pedagogi: (Talk with PPT.)

Theories of personality - Behavioral Theories; Biological Theories; Psychodynamic Theories; Superego; Psychoticism;;Neuroticism/Emotional Stability;;The Five-Factor Theory of Personality; Humanist Theories; Eysenck's Three Dimensions of Personality;

Role of Shuddhi Prakriyas in treatment of illnesses , prevention and promotion of positive Health; concepts of Karma Shuddhi (Yama, Niyama), Ghata Shuddhi (Shat-karma), Snayu Shuddhi (Asana), Prana Shuddhi (Pranayama), Indriya and Mano Shuddhi (Pratyahara), Chitta Shuddhi (Dharana, Dhyana and Samadhi)

Unit 4: Principles and techniques of counselling

Pedagogy: (Talk with PPT. Each student will be made to attend at least one counselling session with a senior counsellor. Latter Q&A with the counsellor)

Qualities of a counselor; Principles of what to speak, how to listen, speak , how to behave, expressions during counseling; what not do while counseling

Role of catharsis as understood by modern psychology and counseling ; Yogic understanding of recognizable and unrecognizable stresses as karma, samskaras ; methods recommended for cleansing (chitta shuddhi) in healing,

Yoga techniques to be used during counselling to cope with hyper sensitive mind, excessive speed of mind, problems of perfectionist personality, hereditary and congenital problems, psychological conflicts, calamities/ life events (present, past , concerns about future distressing events), ageing etc

Reference books:

1. MST 204 Yoga Psychology and Counselling teaching Notes
2. Raja Yoga – Dr H R Nagendra – SVYP
3. The Secret of Action – Dr H R Nagendra – SVYP
4. The Science of Emotions Culture – Dr H R Nagendra – SVYP

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|----------------------------|--|
| Placement Semester | Semester IV |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Artificial Intelligence and Machine Learning |
| Course Code | MSC2123S404T |
| Course Type | Elective |
| Credits | 6 |
| Hours per Semester | 60 |

Introduction to Artificial Intelligence (AI)

Overview of AI and its applications, Historical development and key milestones in AI, Different branches of AI(e.g., machine learning, natural language processing, computer vision)

Foundations of Machine Learning

Introduction to machine learning and its importance, Supervised, unsupervised, and reinforcement learning, Key concepts: features, labels, training data, and models, Neural Networks and Deep Learning,

Introduction to artificial neural networks (ANN)

Deep learning architectures: feed forward, convolutional, and recurrent neural networks, Training neural networks using back propagation and optimization algorithms,Natural Language Processing (NLP)Fundamentals of NLP and its applications,Text preprocessing techniques (e.g., tokenization, stemming, stop-word removal),Language modeling, sentiment analysis, and named entity recognition Computer Vision Basics of computer vision and image processing,Feature extraction methods (e.g., edge detection, corner detection),Object recognition and image classification using deep learning

Ethics and Responsible AI

Ethical considerations in AI and machine learning,Fairness, transparency, and bias in machine learningmodels,Privacy, security, and legal implications of AI applications

Artificial Intelligence & Machine Learning in their use in Health Care

| | |
|----------------------------|-----------------------|
| Placement Semester | Semester IV |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Healthcare Technology |
| Course Code | MSC2123S405T |
| Course Type | Elective |
| Credits | 6 |
| Hours per Semester | 60 |

Electronic Health records EHR

- Definitions – contents and examples of EHR practices
- Preliminary steps in implementation of HER
- Issues and challenges in implementation of EHR
- Planning for the introduction of EHR
- Factors to be considered when developing EHR & implementation plan
- Electronic Medical Record. Preliminary steps in implementation of EMR.
- Remote healthcare and telemedicine,
- PHR (Patient Health Record),
- Clinical Decision Support System,
- m-Health, e-Health and other healthcare tools and applications.

| | |
|----------------------------|-------------------------|
| Placement Semester | Semester IV |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Organizational Behavior |
| Course Code | MSC2123S406T |
| Course Type | Elective |
| Credits | 6 |
| Hours per Semester | 60 |

Management & Organizational Behavior

Importance of Management - Definition of Management -Characteristic features of Management - Roles of Management-Role of a Manager-Levels of Management and their functions-Process of Management-Managerial Skills-Management and Administration-Management – Science or an Art? - Management – a profession? Nature of Management principles, Need for Management principles- Early Management approaches - Scientific Management-Administrative Management-Human Relation Movement-Modern Management Approaches-Behavioral Approach-Quantitative Approach-System approach -Contingency approach

Thinking and Decision-making process

Human Information Processing -Approaches (Lens model, Cognitive approach, Process training approach)- Phases of decision making- Types of decision making- Decision cycle- Behavioral decision making- Decision rationality - Models of behavioral decision making-Use of heuristics- Thinking – process, images, language- Concepts- Problem solving- Creative thinking Perception Definition- Factors- Perceptual grouping and selectivity - Stimuli selection- Barriers - Honing perceptual skills Attitudes and values Definition, Characteristics, Functions and Formation of attitudes-Definition, types, formation of values- Values and behavior- Values and ethics- Values and attitudes Learning Definition – Components –Determinants- Theories (classical, operant, cognitive, social learning)- Principles of reinforcement- Punishment- Learning curves- Learning and behavior

General Management

Planning –Organization-Decision Making-Communication-Staffing-Directing-Motivation-Counseling - Mentoring –LeadershipOrganizational Behavior Personal Growth and Development **Definition**, characteristics, determinants, causes, Theories (Type,Trait, Intrapsychic, Social learning, Skinner’s)

| | |
|----------------------------|-----------------------|
| Placement Semester | Semester IV |
| Name of the Program | M.Sc. Yoga Therapy |
| Program Code | MSC2123 |
| Name of the Course | Dissertation and Viva |
| Course Code | MSC2123S406P |
| Course Type | Elective |
| Credits | 7 |
| Hours per Semester | 210 |

Dissertation

Pedagogy

Identifying several situations same and able to dissertation work, writing a proposal and making a presentation to the Dissertation faculty advisory committee. Reporting to the committee on the progress of research work periodically. Making use of a variety of research methods. Defending the inference before the Examining Committee.

Contents

Every student will do a detailed study on the topic selected for the dissertation, and is expected to prepare a two or three proposals which he intends to take up for the Dissertation. Faculty will examine this and decide on the topic of dissertation.

The Process involves:

1. Formulation of objectives and hypothesis
2. Review of literature
3. Designing the tool for data collection
4. Data collection
5. Coding, classifying and analysis of data
6. Inferences, conclusions and recommendations
7. Preparing a bibliography
8. Writing the dissertation and submission

MODEL PAPER

M.Sc. Yoga Ther.– I

YT.-I

MSC2123S101T

M.Sc. Yoga Therapy
Semester-I (Main) Examination month year
Paper I

Yoga Philosophy

Time: Three Hours
Maximum Marks: 70

Students shall be allowed to take only one supplementary copy long with one main answer book. All the parts of one question should be answered at one place. Different parts of one question should not be answer at different places in the answer book

Attempt all Questions.

Long Answer Type

15x3 = 45

1. Describe happiness analysis as postulated in Upanishads
2. Search for reality – How does and Modern Science and Upanishads approach –describe
3. Explain prana model leading to Yoga and Bhoga way of life.

Short Notes

5x5=25

1. Dharma forms the foundation of Religions. Explain
2. What is Nitya Karma and its relation to Yoga?
3. Write one sloka (verse) from Gita connected to Yoga and explain it briefly
4. Write the Significance of OM
5. Mention Triguna and explain them briefly

MODEL PAPER

M.Sc. Yoga Therapy

Semester-I (Main) Examination month year

Paper II

Research Methodology

Time: Three Hours

Maximum Marks: 70

Students shall be allowed to take only one supplementary copy long with one main answer book. All the parts of one question should be answered at one place. Different parts of one question should not be answer at different places in the answer book

Attempt all Questions.

Long Answer Type

15x3 = 45

1. Differentiate between the descriptive and analytic research methods.
2. What is research problem? Define the main issues which should receive the attention of the researcher in formulating the research problem. Give suitable examples.
3. Data collection is the back bone of research. Discuss about the various methods used for data collection.

Short Notes

5x5=25

1. Describe various interview methods for collection of data
2. Write the difference between questionnaires and schedules
3. Explain the alternative hypothesis
4. What is the role and features of research hypothesis. How is research hypothesis formulated?
5. Discuss the role of institutional review board.

MSC2123S103T

MODEL PAPER

M.Sc. Yoga Therapy

Semester-I (Main) Examination month year

Paper III

Anatomy

Time: Three Hours

Maximum Marks: 70

Students shall be allowed to take only one supplementary copy long with one main answer book. All the parts of one question should be answered at one place. Different parts of one question should not be answer at different places in the answer book

Attempt all Questions.

Long Answer Type

15x3 = 45

1. Describe in detail about the structure and function of heart
2. Explain in detail about cell and its organelles
3. Describe in detail about the structural and functional anatomy of female reproductive system

Short Notes

5x5=25

1. Describe the structure and function of eye
2. Explain the structural anatomy of stomach
3. Describe the structure of synovial joint
4. Write in detail about pituitary Gland
5. Describe the anatomy of lung

MODEL PAPER

M.Sc. Yoga Therapy

Semester-I (Main) Examination month year

Paper IV

Medical Terminology

Time: Three Hours

Maximum Marks: 70

Students shall be allowed to take only one supplementary copy long with one main answer book. All the parts of one question should be answered at one place. Different parts of one question should not be answer at different places in the answer book

Attempt all Questions.

1. Long Answer (Attempt any two)

2X15 = 30

- A. Discuss about Origin of medical terms.
- B. Discuss about historical perspective of diagnostic and therapeutic tests.
- C. What do you understand about ICD.

2. Short Essay (Attempt any Two)

2X10 = 20

- A. Common sign and symptoms of disease conditions.
- B. What are the therapeutic tests, and procedures related to digestive system.
- C. Issues associated With ICD Development.

, Short notes (Any four)

4X5 = 20

- A. Development of Medical Terminology.
- B. What Is Reproductive System.
- C. Definition & Types of Suffixes.
- D. Division of The Body Into Body Cavities And Planes.
- E. Write Down Common Medical Terms and Meaning Of Those Terms.

MSC2123S105T

MODEL PAPER

M.Sc. Yoga Therapy
Computer Applications

Time: Three Hours

Maximum Marks: 70

Students shall be allowed to take only one supplementary copy long with one main answer book. All the parts of one question should be answered at one place. Different parts of one question should not be answer at different places in the answer book

Attempt all Questions.

1. Long Answer (Attempt any two)

2X15 = 30

- A. Discuss about Memory
- B. Discuss about input / Output Devices:.
- C. What do you understand about Magnetic ink character recognition (MICR):.

2. Short Essay (Attempt any Two)

2X10 = 20

- A. Optical mark recognition (OMR).
- B. Bar code reader.
- C. Computer software

3. Short notes (Any four)

4X5 = 20

- A. Monitor..
- B. Word processing software.
- C. Definition of Machine language.
- D. Compiler & Interpreter
- E. Interpreter.

MODEL PAPER
M.Sc. Yoga Therapy
Semester-I (Main) Examination month year

Paper VI

Introductory Mathematics

Time: Three Hours

Maximum Marks: 70

Students shall be allowed to take only one supplementary copy long with one main answer book. All the parts of one question should be answered at one place. Different parts of one question should not be answer at different places in the answer book

Attempt all Questions.

1. Long Answer (Attempt any two)

2X15 = 30

- a) What do you understand about Probability theory and probability distributions?
- b) Define Maxima and Minima of a function?
- c) Describe probability mass function and probability distribution function, cumulative distribution function

2. Short Essay (Attempt any Two)

2X10 = 20

- a) What is central tendency?
- b) What is Measures of dispersion?
- c) What is skewness and kurtosis?

3. Short notes (Any four)

4X5 = 20

- a) Describe Correlation and regression analysis.?
- b) Describe Bi-variate data?
- c) What is Hyperbola?
- d) What is range, mean deviation?
- e) What is Conditional probability?

MSC2123S201T

MODEL PAPER

M.Sc. Yoga Therapy

Semester-II (Main) Examination month year

Paper I

Physiology

Time: Three Hours

Maximum Marks: 70

Students shall be allowed to take only one supplementary copy long with one main answer book. All the parts of one question should be answered at one place. Different parts of one question should not be answer at different places in the answer book

Attempt all Questions.

Long Answer Type

15x3 = 45

1. Draw and label a diagram of the neuromuscular junction. List out the steps involved in neuromuscular transmission
2. Describe the function of kidney and add a note on how urine is produced inside the kidney ?
3. Describe the function of Human ear.

Short Notes

5x5=25

2. Explain short term regulation of blood pressure
3. Explain with the help of a diagram different stages of erythropoiesis
4. Discuss the functions of Insulin.
5. Describe the functions of ADH. What happens if ADH is deficient?
6. Explain auditory pathway.

MSC2123S202T

MODEL PAPER
M.Sc. Yoga Therapy
Semester-II (Main) Examination month year
Paper - II

Yoga for Prevention and Promotion of Health

Time: Three Hours

Maximum Marks: 70

Students shall be allowed to take only one supplementary copy long with one main answer book. All the parts of one question should be answered at one place. Different parts of one question should not be answer at different places in the answer book

Attempt all Questions.

Long Answer Type

15x3 = 45

1. Explain the terms Ego and super Ego. Explain the role of ManomyaKosa in ego and one practice for the same.
2. Explain the IAYT practice for creativity development.
3. Explain the steps in anger management.

Short Notes

5x5=25

1. Write about effect of stress on physical health
2. Describe about yoga practices for development of memory.
3. Describe yoga practices for voice culture
4. How Trataka helps in glaucoma
5. Define different types of memory

MSC2123S203T

MODEL PAPER

M.Sc. Yoga Therapy

Semester-II (Main) Examination month year

Paper - III

Sanskrit Bhasha Vijnanam

Time: Three Hours

Maximum Marks: 70

Students shall be allowed to take only one supplementary copy long with one main answer book. All the parts of one question should be answered at one place. Different parts of one question should not be answer at different places in the answer book

Attempt all Questions.

Long Answer Type

15x3 = 45

1. Describe sandhi in detail.
2. Describe vachan in detail.
3. Describe utpatti sthan in detail.

Short Notes

5x5=25

1. Swar
2. Vyanjan
3. Counting 23 to 33.
4. Counting 60 to 80.
5. Timing 2.30, 6.15, 9.45, 10.40 in Sanskrit.

MODEL PAPER

M.Sc. Yoga Therapy

Semester-II (Main) Examination month year**Paper - IV****Database Management System** Time: Three

Hours Maximum Marks: 70

Students shall be allowed to take only one supplementary copy long with one main answer book. All the parts of one question should be answered at one place. Different parts of one question should not be answer at different places in the answer book

Attempt all Questions.

- 1. Long Answer (Attempt any two) 2X15 = 30**
- A Discuss about DBMS
- B Discuss Entity Relationship Model
- C Discuss Data Base design
- 2. Short Essay (Attempt any Two) 2X10 = 20**
- A What is BCNF?
- B Comparison between traditional file system and DBMS?
- C Discuss Integrity and security of Databases
- 3 Short notes (Any four) 4X5 = 20**
- A SwissProt and PDB.
- B Consistency and Concurrency control
- C Functional Dependency and its types
- D Temporal database
- E SQL queries.

MODEL PAPER

M.Sc. Yoga Therapy

Semester-II (Main) Examination month year Paper - V

Data Analysis & Visualization

Time: Three Hours Maximum

Marks: 70

Students shall be allowed to take only one supplementary copy long with one main answer book. All the parts of one question should be answered at one place. Different parts of one question should not be answer at different places in the answer book

Attempt all Questions.

1. Long Answer (Attempt any two) 2X15 = 30

- A. Discuss about Data Analysis.
- B. Discuss Dynamic Data analysis programming approach.
- C. Discuss about Introduction to different types of data (structured, unstructured, big data).

2. Short Essay (Attempt any Two) 2X10 = 20

- A. What are Data cleaning and preprocessing techniques?
- B. What are Data visualization techniques?
- C. Discuss about Introduction to data clustering.

3 Short notes (Any four) 4X5 = 20

- A. Hierarchical clustering
- B. Data transformation
- C. Bar charts
- D. Decision trees
- E. Box plots

MSC2123S206T

MODEL PAPER

M.Sc. Yoga Therapy

Semester-II (Main) Examination month year

Paper - VI

Internet Technology

Time: Three Hours Maximum Marks: 70

Students shall be allowed to take only one supplementary copy long with one main answer book. All the parts of one question should be answered at one place. Different parts of one question should not be answer at different places in the answer book

Attempt all Questions.

1. Long Answer (Attempt any two) 2X15 = 30

- A. Discuss about Internet Technology application in health care sector.
- B. Discuss healthcare Information Technology.
- C. Discuss Issues in Internet Technology.

2. Short Essay (Attempt any Two) 2X10 = 20

- A. What are Internet tools?
- B. What are Internet networks?
- C. Discuss access to Internet in hospital.

, Short notes (Any four) 4X5 = 20

- A. Informatics officer roles and responsibilities
- B. IT and Computer
- C. Communication
- D. Models of health care delivery
- E. Information Technology and Systems.

MSC2123S301T

MODEL PAPER

M.Sc. Yoga Therapy

Semester-III (Main) Examination month year

Paper - I

Patanjali Yoga Sutras

Time: Three Hours

Maximum Marks: 70

Students shall be allowed to take only one supplementary copy long with one main answer book. All the parts of one question should be answered at one place. Different parts of one question should not be answer at different places in the answer book

Attempt all Questions.

Long Answer Type

15x3 =45

1. Write about the nature of Prakruti and Purusha.
2. Explain the chittabhoomis
3. Explain Heya, Heyahetu

Short Notes

5x5=25

1. Explain Purusha and Prakruti.
2. hat happens to Vritti in the state of Kaivalya?
3. When the vasanas start disappearing?
4. What are the obstacles for progress in the path of Yoga according to Patanjali?
5. What is the nature of the knower or pure consciousness?

MSC2123S302T

MODEL PAPER

M.Sc. Yoga Therapy

Semester-II (Main) Examination month year

Paper - II

Fundamental of Integrative Medicine

Time: Three Hours

Maximum Marks: 70

Students shall be allowed to take only one supplementary copy long with one main answer book. All the parts of one question should be answered at one place. Different parts of one question should not be answer at different places in the answer book

Attempt all Questions.

Long Answer Type

15x3 = 45

1. Explain principles of Naturopathy and write about the modalities of treatment used in Naturopathy
2. Explain how acupuncture works
3. What are three doshas? Describe their manifestation in the body.

Short Notes

5x5=25

1. Difference between starving and fasting
2. Hydro Therapy
3. Difference between Ayurveda and Naturopathy massage
4. Physiological significance of mud therapy.
5. Panchakarma.

MSC2123S303T

MODEL PAPER

M.Sc. Yoga Therapy
Hatha Yoga Pradipika

Time: Three Hours

Maximum Marks: 70

Students shall be allowed to take only one supplementary copy long with one main answer book. All the parts of one question should be answered at one place. Different parts of one question should not be answer at different places in the answer book

Attempt all Questions.

Long Answer Type

15x3 = 45

1. Explain with reference the relationship between Vata and chitta
2. Nadansandhana leads to Laya –Explain
3. What are the sequences of Hatha Yoga sadhana?

Short Notes

5x5=25

1. Explain any one satkarma in detail with reference
2. What are kumbhakas
3. What are the curative effects of Mayurasana
4. Why Hatha Yoga sadhana should be kept secret?
5. Write about progressive stages of Samadhi.

MSC2123S304T

MODEL PAPER
M.Sc. Yoga Therapy
Semester-III (Main) Examination month year

Paper - IV

HUMAN GENETICS AND DISEASES

Time: Three Hours

Maximum Marks: 70

Students shall be allowed to take only one supplementary copy long with one main answer book. All the parts of one question should be answered at one place. Different parts of one question should not be answer at different places in the answer book

Attempt all Questions

- 1. Long Answer (Attempt any two) 2X15 = 30**
- A. What are the important reasons to study human chromosome structure?
 - B. Discuss about banding techniques.
 - B Describe Dystrophy.
- 2. Short Essay (Attempt any Two) 2X10 = 20**
- A. What is Klinefelter syndrome?
 - B Discuss Huntington disease.
 - C. Benefits of informed consent and right of choice?
- 3. Short notes (Any four) 4X5 = 20**
- A What is schizophrenia?
 - B Diabetes
 - C Ethical issues in medical genetics?
 - D. Thalassaemia syndromes.
 - E. Multifactorial disorders

MSC2123S305T

MODEL PAPER
M.Sc. Yoga Therapy
Semester-III (Main) Examination month year

Paper - V

**Hospital Organization and
Management Theory**

Time: Three Hours

Maximum Marks: 70

Students shall be allowed to take only one supplementary copy long with one main answer book. All the parts of one question should be answered at one place. Different parts of one question should not be answer at different places in the answer book

Attempt all Questions

1. Long Answer (Attempt any two)

2X15 = 30

- A. Discuss about **Management**.
- B. Evolution of management thought.
- C Nature of Management process.

2. Short Essay (Attempt any Two)

2X10 = 20

- A. What is accounting information?
- B. What is Third Party Administrator?
- C. Discuss access and quality of care issues.

, Short notes (Any four)

4X5 = 20

- A Decision Making
- B Stepsinplanning.
- C Delegation of Authority Staffing.
- D. Models of health care delivery.
- E Information Technology and Systems.

MSC2123S306T

MODEL PAPER
M.Sc. Yoga Therapy
Semester-III (Main) Examination month year

Paper - VI

**Legal & Medical Issues in
Hospitals**

Time: Three Hours

Maximum Marks: 70

Students shall be allowed to take only one supplementary copy long with one main answer book. All the parts of one question should be answered at one place. Different parts of one question should not be answer at different places in the answer book

Attempt all Questions

1. Long Answer (Attempt any two)

2X15 = 30

- A. Discuss about Sophisticated drug and Technology.
- B. Discuss Informed Consent.
- C professional conduct of healthcare and health information professional

2. Short Essay (Attempt any Two)

2X10 = 20

- A. What is Quality of life.
- B What is Health Insurance &Third-Party Administrator.
- C. Discuss access and quality of care issues.

Short notes (Any four)

4X5 = 20

- A. Malpractice & negligence
- B. Female feticide & Infanticide.
- C. Billing assessment of population health .
- D Models of health care delivery.
- E. Law in Health care.

MSC2123S401T

MODEL PAPER

M.Sc. Yoga Therapy

Semester-IV (Main) Examination month year

Paper - I

Evidence based Yoga Therapy – I

Time: Three Hours

Maximum Marks: 70

Students shall be allowed to take only one supplementary copy long with one main answer book. All the parts of one question should be answered at one place. Different parts of one question should not be answer at different places in the answer book

Attempt all Questions.

Long Answer Type

15x3 = 45

1. Describe the procedure of kapalabhati and mention its physiological effects and indications and contra-indications in various health conditions.
2. Describe Bronchial Asthma in detail and add a note on its yogic management
3. Describe Coronary Artery Disease in detail and add a note on its yogic management

Short Notes

5x5=25

1. Ashwini mudra in vipareetkarini
2. Chair breathing technique and its role in asthma management
3. Yogic management of Tuberculosis
4. Atherosclerosis
5. Mention evidence based practices for Hypertension.

MSC2123S402T

MODEL PAPER

M.Sc. Yoga Therapy

Semester-IV (Main) Examination month year

Paper - II

Evidence based Yoga Therapy – II

Time: Three Hours

Maximum Marks: 70

Students shall be allowed to take only one supplementary copy long with one main answer book. All the parts of one question should be answered at one place. Different parts of one question should not be answer at different places in the answer book

Attempt all Questions.

Long Answer Type

15x3 = 45

1. Mention any 5 neurological disorders and explain multiple sclerosis along with its yogic management
2. What do you mean by PCOS? Explain in detail along with yogic management
3. What is APD? Explain about Ulcerative colitis along with notes on its Yogic Management

Short Notes

5x5=25

1. Epilepsy yogic management
2. Parkinson's disease
3. IAYT for refractive errors
4. Crohn's disease
5. Head rolling

MSC2123S403T

MODEL PAPER

M.Sc. Yoga Therapy

Semester-IV (Main) Examination

month year Paper - III

Yogic Counseling

Time: Three Hours

Maximum Marks: 70

Students shall be allowed to take only one supplementary copy long with one main answer book. All the parts of one question should be answered at one place. Different parts of one question should not be answer at different places in the answer book

Attempt all Questions.

Long Answer Type

15x3 = 45

1. Mention the different causes of psychological problems according to yoga and give yogic management for problems due to perfectionist attitude.
2. Write the qualities of a Yoga counselor
3. Describe panchakosa concept in light of Yogic counseling.

Short Notes

5x5=25

1. Write about the challenges in counseling
2. What are the different personality traits according to Bhagavadgita?
3. Notional correction
4. Hyper sensitivity – Yogic management
5. Excess speed of mind – yogic management

MSC2123S404T

MODEL PAPER
M.Sc. Yoga Therapy
Semester-IV (Main) Examination month year

Paper - IV

Artificial Intelligence and Machine Learning

Time: Three Hours

Maximum Marks: 70

Students shall be allowed to take only one supplementary copy long with one main answer book. All the parts of one question should be answered at one place. Different parts of one question should not be answer at different places in the answer book

Attempt all Questions.

1. Long Answer (Attempt any two)

2X15 = 30

- A. Introduction to Artificial Neural Networks
- B. Describe Models of a Neuron.
- C Discuss Computer vision .

2. Short Essay (Attempt any Two)

2X10 = 20

- A. Describe Machine Learning .
- B Recurrent Networks
- C What is Boltzman, Supervised and unsupervised learning?

3 Short notes (Any four)

4X5 = 20

- A. Network architectures
- B. Boltzmann machine
- C. What is Temporal processing?
- D. Recurrent neural networks.
- E. Deep Learning

MODEL PAPER

M.Sc. Yoga Therapy

Semester-IV (Main) Examination month year

Paper - V

Healthcare Technology

Time: Three Hours

Maximum Marks: 70

1. Long Answer (Attempt any two)

2X15 = 30

A. Emerging technology issues in healthcare.

B concepts and operation of the main
components of word processor.C electronic
spreadsheet

2. Short Essay (Attempt any Two)

2X10 = 20

A. conceptual and relational data modeling.

B. data integrity.

C. relational normalization theory

Short notes (Any four)

4X5 = 20

A. database systems

B. Health statics

C. Billing software's .

D. Models of health care delivery.

E. presentation software programs.

MSC2123S406T

MODEL PAPER
M.Sc. Yoga Therapy
Semester-IV (Main) Examination month year
Paper - VI
Organizational Behaviors
Time: Three Hours
Maximum Marks: 70

1. Long Answer (Attempt any two) 2X15 = 30

- A. Discuss about organizational Behaviour
- B. Discuss about Organizational policies.
- C Utilization management.

2. Short Essay (Attempt any Two) 2X10 = 20

- A. Professionalism .
- B. International Standards Organization.
- C Hospital organizations

Short notes (Any four) 4X5 = 20

- A. Types of hospitals.
- B Health Statistics
- C. Billing assessment of population health.
- D Healthcare Industry.
- E. Information Technology in quality.