# ST. ALBERT'S COLLEGE (AUTONOMOUS),

# ERNAKULAM

Affiliated to Mahatma Gandhi University, Kottayam, Kerala

## SYLLABUS FOR UNDERGRADUATE PROGRAMME

## BACHELOR OF VOCATION

IN

## FITNESS MANAGEMENT & PERSONAL TRAINING

UNDER CREDIT SEMESTER SYSTEM

(WITH EFFECT FROM 2023 ADMISSION)

# Syllabus of B. Voc. Fitness Management & Personal Training

Proposed by the Board of Studies on 1st March 2023

Dr. Sajeev Jose

Chairman, Board of Studies

Approved by the Academic Council 14th March 2023

Dr. Bijoy V. M, Principal

Chairman, Academic Council

Adopted by the Governing Council on 22nd April 2023

Dr. Rev. Antony Thoppil

Chairman, Governing Council

# Board of Studies

| SL. No. | Name | Designation |
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| 2 | Dr. Mini Thomas, Assistant Professor & HOD, Bishop Kurialacherry College for Women, Amalagiri Kottayam. | University Nominee |
| 4 | Dr. Dino Varghese, Assistant Professor & HOD, Al Ameen College, Edathala. | External (Member) |
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| 6 | Dr. Thomas K M, Assistant Professor, St. Teresa's College, Ernakulam. | External (Member) |
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# Acknowledgement

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We express profound gratitude to the Manager and Principal of St. Albert's College for their leadership and guidance for completion of this work.

We thank the all the BOS members for extending their service for the smooth completion of the syllabus restructuring.

I place on record my wholehearted gratitude to all the faculty members of Department of Fitness Management for their untiring efforts.

I also place on record my gratitude to all professionals, academicians and other stakeholders who gave valuable suggestions in this regard.

Head of the Department

Sports Science and Fitness Management

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# Preface

As envisaged in the recent regulations of Autonomous colleges in India by University Grants Commission, autonomous colleges enjoy the academic freedom to enrich the curriculum by incorporating recent trends and needs. Curriculum and syllabus of each academic program has to be revised periodically to impart major objectives like global competency, skill component, values and regional relevance. Academicians and scholars in the respective area of knowledge have to express a missionary zeal for this great purpose. St. Albert's College (Autonomous), Ernakulam has continuously enjoyed high esteem in sports and games, with stellar performances creating new records at University, State, National and International importance and fame. The College has produced many top-ranking players and athletes of national and international repute. St. Albert's College (Autonomous) has played are markable role in promoting health, fitness and physical education by teaching, coaching and rendering excellence through advanced Training.

# Graduate Attributes

On completion of an Undergraduate Programme from St. Albert's College (Autonomous), students should be able to demonstrate the graduate attributes listed below:

## GA 1: Discipline knowledge

Demonstrate comprehensive knowledge and understanding of one or more disciplines that form a part of an undergraduate programme of study.

## GA 2: Critical Thinking

Apply analytic thought to a body of knowledge; analyze and evaluate evidence, arguments, claims, beliefs on the basis of empirical evidence; identify relevant assumptions or implications; formulate coherent arguments; critically evaluate practices, policies and theories by following scientific approach to knowledge development.

## GA 3: Effective Communication

Capacity to connect with people, ideas, books, media, and technology to make sense of the world. This includes the ability to communicate, read, write, and listen clearly in person and through electronic media in English and in one Indian language.

## GA 4: Social Responsibility

Exhibit qualities of an ideal citizen through civic and social responsibilities along with the knowledge of one's environment and the issues faced, and strive towards sustainable development.

## GA 5: Digital Competency

Analyze and choose from available data and information sources to communicate, collaborate and network through a range of digital media.

# Programme Outcomes

Upon the competition of B. Voc Fitness Management and Personal Training, students would be able to demonstrate the programme outcomes listed below:

### PO 1: Discipline knowledge

Develop knowledge of the organic, skeletal, and neuromuscular structures of the human body adapt and contribute to motor performance, fitness, and wellness and psychological factors associated with diverse physical activity, exercise and health.

### PO 2: Critical Thinking

Develop critical-thinking skills necessary to understand, analyze, and produce knowledge specific to fitness management, health and personal training.

### PO 3: Self - directed and lifelong learning

Acquire the ability to engage in independent and lifelong learning in the broadest context of health and fitness.

### PO 4: Aesthetic engagement

Demonstrate and master the ability to engage with the health, fitness and draw meaning and value from healthy expression that integrates the intuitive dimensions of participation in the health & fitness with broader social, mental and physical frameworks.

### PO 5: Ethics

Recognize different value systems including own, understand the moral dimensions of decisions and accept responsibility for them.

### PO 6: Individual and Team Work

Ability to work effectively as a member and leader in teams, preferably in a multi-disciplinary setting.

### PO7: Management and Motivation

Understand individual and group motivation and behaviour to create safe learning environments that encourage positive social interaction, active engagement in learning, and self-motivation.

# Regulations

## 1. TITLE

These regulations shall be called "ST. ALBERT'S COLLEGE (AUTONOMOUS), ERNAKULAM - REGULATIONS FOR B. VOC. PROGRAMMES Under Credit Semester System 2023" (SACA B. Voc. CSS 2023).

## 2. SCOPE

This applies to all regular B. Voc. Programme conducted by the College with effect from 2023 admissions. The medium of instruction is English except in the case of language courses other than English unless otherwise stated therein.

## 3. DEFINITIONS

'Academic Week' is a unit of five working days in which the distribution of work is organized from day one to day five, with five contact hours of one-hour duration on each day / is a unit of six working days in which the distribution of work is organized from day one to day five with 4 hours and day six with 5 contact hours of one-hour duration on each day as decided by the Governing body of the College.

3.1 NSQF means National Skills Qualifications Framework

3.2 'General components' means a course that provides a general awareness about the discipline.

3.3 'Skill components' means a course in the subject of specialization within a vocational degree programme.

3.4 'Course' means a portion of a subject to be taught and evaluated in a semester (similar to a paper under the annual scheme).

3.5 'OJT' means On-the-job training for a period of 2 weeks.

3.6 'Internship' means a professional learning experience of 2-4 weeks that offers meaningful practical work-related student's field of study.

3.7 'Credit' is the numerical value assigned to a paper according to the relative importance of the syllabus of the programme.

3.8 'Department' means any teaching department in a college.

3.9 'Examination Coordinator' is a teacher nominated by a Department Council to coordinate the continuous evaluation undertaken in that department.

3.10 'Department Council' means the body of all teachers of a department in a

college.

3.11 'Class Tutor' means a teacher from the department nominated by the Department Council, who will advise the student on academic matters.

3.12 Grace Marks shall be awarded to candidates as per the Orders issued from the college from time to time at par with the affiliating University.

3.13 'Grade' means a letter symbol (A, B, C, etc.), which indicates the broad level of performance of a student in a Paper/Course/ Semester/Programme.

3.14 'Credit Point' (CP) is the numerical indicator of the percentage of marks awarded to a student in a course.

3.15 'Institutional Average (IA)' means average mark secured (Internal + external) for a course at the college level.

3.16 'Parent Department' means the department which offers the skill course/courses within an undergraduate programme.

3.17 'Programme' means a three-year programme of study and examinations spread over six semesters, the successful completion of which would lead to the award of a degree.

3.18 Semester' means a term consisting of 90 working days, inclusive of tutorials, examination days, and other academic activities within a period of five months.

3.19 'Vocational Course' (Skill Enhancement Course) means a course that enables the students to enhance their practical skills and ability to pursue a vocation in their subject of specialization.

3.20 Words and expressions used and not defined in this regulation shall have the same meaning assigned to them in the Acts and Regulations of UGC, Department of Higher Education, the affiliating University and regulations of the College.

## 4. ELIGIBILITY FOR ADMISSION AND RESERVATION OF SEATS

4.1 Candidates shall be required to have passed Plus Two or equivalent examination recognized by M.G University.

4.2 Eligibility for admissions and reservation of seats for various Undergraduate Programmes shall be according to the rules framed by the

Governing Body of the College in this regard, from time to time at par with the UGC norms and regulations of the Government of Kerala and will be published in the prospectus.

## 5. FACULTY UNDER WHICH DEGREE IS AWARDED

The Faculty of Physical Education and Sports Sciences.

## 6. CURRICULUM

The curriculum in each of the years of the programme would be a suitable mix of general education and skill development components.

## 7. DURATION

7.1 The duration of the U.G. programme shall be 6 semesters.

7.2 There shall be two semesters in an academic year, the "ODD" semester commences in June, and on completion, the "EVEN" Semester commences.

7.3 There shall be a two-month vacation during April/May and internships may be conducted during this month as decided by the departments.

7.4 The certification levels will lead to Diploma/ Advanced Diploma/ B. Voc Degree and will be offered under the aegis of the College in association with the respective sector skill council of the programme in accordance with the NSQF as outlined in the Table given below.

| Award | Duration |
|---|---|
| Diploma | 2 Semesters |
| Advanced Diploma | 4 Semesters |
| B. Voc. Degree | 6 Semesters |

## 8. ELIGIBILITY FOR HIGHER STUDIES

Those who pass B. Voc. Degree programmes are eligible for admission to higher studies.

## 9. CREDIT CALCULATION

The following formula is used for the conversion of time into credit hours.

One Credit would mean the equivalent of 15 periods of 60 minutes each, for theory,

workshops/labs, and tutorials;

For internship/fieldwork/OJT, the credit weightage for equivalent hours shall be 50% of that for lectures/workshops.

## 10. REGISTRATION

The strength of students for each programme shall be as per the existing orders issued by the College following the UGC guidelines.

## 11. SCHEME AND SYLLABUS

11.1 The U.G. programmes shall include (a) General components, (b) Skill components.

11.2 Credit Transfer and Accumulation system can be adopted in the programme with the concurrence of the Governing Body of the College. Transfer of Credit consists of acknowledging, recognizing and accepting credits by an institution for programmes or courses completed at another institution. The Credit Transfer Scheme shall allow students pursuing a programme in one College/University to continue their education in another College/University without break.

11.3 The B. Voc. programme should follow credit and semester system of St. Albert's College (Autonomous).

11.4 A separate minimum of 30% marks each for internal and external (for both theory and practical) and an aggregate minimum of 40% are required for a pass for a course. For the programmes with practical examinations, the practical examinations will be conducted every semester or at the end of even semesters as applicable.

11.5 For a pass in a programme, a separate minimum of Grade E is required for all the individual courses. If a candidate secures an F Grade for any one of the courses offered in a Semester/Programme only F Grade will be awarded for that Semester/Programme until he/she improves this to E Grade or above within the permitted period. The candidate who secures E Grade and above will be eligible for higher studies.

## 12. PROGRAMME STRUCTURE

The B. Voc. programme shall include the following elements:

- General Education Components

- Skill Components
- Project
- Internships
- OJT
- Soft skills and Personality Development Programmes
- Field Visit/Industrial Visits/Study Tour

| | PARTICULARS | B. Voc. Programmes |
|---|---|---|
| A | Programme Duration | 6 Semesters |
| B | Total Credits required for successful completion of the Programme | 180 |
| C | Credits required from Skill Component | 108 |
| D | Credits required from General Component | 72 |
| G | Minimum attendance required | 75% |

## 13. COURSE STRUCTURE

The B. Voc. Programme should be comprising 60% Skill Development Components (60% of Total Credits) and 40% General Education Component (60% of Total Credits) as per guidelines of UGC and NSQL.

| NSQF Level | Credits | | Normal Duration | Exit Points / Awards |
|---|---|---|---|---|
| | Skill Component | General Component | | |
| Level 5 /Year 1 | 36 | 24 | Two Semesters | Diploma |
| Level6/Year 2 | 72 | 48 | Four Semesters | Advanced Diploma |
| Level 7/Year 3 | 108 | 72 | Six Semesters | B. Voc. Degree |

As per the UGC guidelines, there are multiple exit points for a candidate admitted to this course. If he/she is completing all six semesters successfully, he/she will get a B. Voc. Degree. If he/she is completing the first four semesters successfully, he/she will get an Advanced Diploma. If he/she is completing the first two semesters successfully, he/she will get a Diploma. A B. Voc. Degree holder is expected to acquire the skills needed for a Manager/Entrepreneur/skilled employee.

## 14. ATTENDANCE

The minimum number of hours of lectures, tutorials, seminars or practical which a student shall be required to attend for eligibility to appear at the end semester examination shall not be less than 75% of the total number of lectures, tutorials, seminars, or practical sessions and shall have 75% separate attendance during their internship/OJT/HOT period also. Internships, HOT/OJT and soft skill and personality development programmes are part of the course and students must meet the attendance requirements for these activities to complete a semester.

## 15. ASSESSMENT AND CERTIFICATION BY SECTOR SKILL COUNCIL (SSC)

The department should make necessary arrangements for the simultaneous assessment and certification of Skill Development Component by aligned SSC having the approval of National Skill Development Corporation of India (NSDC).

## 16. EXAMINATION

The evaluation of each paper shall contain two parts:

Internal or In-Semester Assessment (ISA)

External or End-Semester Assessment (ESA)

The internal to external assessment ratio shall be 1:4.

Both internal and external marks are to be rounded to the next integer.

All papers (theory & practical), grades are given **on a 7-point scale** based on the total percentage of marks, *(ISA+ESA)* as given below: -

| Percentage of Marks | Grade | Grade Point |
|---|---|---|
| 95 and above | O – Outstanding | 10 |
| 90 to below 95 | A+ – Excellent | 9 |
| 80 to below 90 | A - Very Good | 8 |
| 70 to below 80 | B+ – Good | 7 |
| 60 to below 70 | B – Above Average | 6 |
| 50 to below 60 | C – Average | 5 |
| 40 to below 50 | P – Pass | 4 |
| Below 40 | F – Fail | 0 |
| | Ab – Absent | 0 |

## 17. CREDIT POINT AND CREDIT POINT AVERAGE

**The Credit Point (CP)** of a paper is calculated using the formula:

CP = C × GP, where C is the Credit and GP is the Grade point.

**Semester Credit Point Average (SCPA)** of a Semester is calculated using the formula:

SCPA / CPA= TCP/TC, where TCP is the Total Credit Point of that semester.

**Cumulative Credit Point Average (CCPA)** is calculated using the formula:

CCPA = TCP/TC, where TCP is the Total Credit Point of that programme.

Credit Point Average (CPA) of different categories, of course, is calculated using the formula:

CPA = TCP/TC, where TCP is the Total Credit Point of a category of course.

TC is the total credit of that category of course.

Grades for the different courses, semesters and overall programme are given based on the corresponding CPA as shown below:

| CPA | Grade | |
|---|---|---|
| 9.5 and above | O | Outstanding |
| 9 to below 9.5 | A+ | Excellent |
| 8 to below 9 | A | Very Good |
| 7 to below 8 | B+ | Good |
| 6 to below 7 | B | Above Average |
| 5 to below 6 | C | Average |
| 4 to below 5 | P | Pass |
| Below 4 | F | Failure |

## 18. MARK DISTRIBUTION FOR EXTERNAL AND INTERNAL EVALUATIONS

The external theory examination of all semesters shall be conducted by the college at the end of each semester. Internal evaluation is to be done by continuous assessment. For all courses, the total marks for external examination are 80 and the total marks for internal evaluation is 20.

For the courses having both theory and practical components, the external examination marks would include 60 for theory and 20 for practical. The internal evaluation would remain the same as above.

Mark distribution for external and internal assessments and the components for internal evaluation with their marks are shown below:

### 18.1 For all theory courses

Marks of external Examination : 80

Marks of internal evaluation : 20

| Components of Internal Evaluation of theory | Marks |
|---|---|
| Attendance | 5 |
| Assignment/ Seminar/Viva | 5 |
| Test Paper 1 | 5 |
| Test paper 2 | 5 |
| Total | 20 |

18.2 For practical examinations,

The total marks for external evaluation : 80

The total mark for internal evaluation : 20

| Components for internal evaluation of Practical | Marks |
|---|---|
| Attendance | 5 |
| Record | 5 |
| Skill Test | 5 |
| Lab Performance/Punctuality | 5 |
| Total | 20 |

*Marks awarded for Record should be related to the number of experiments recorded and duly signed by the teacher concerned in charge.

All four components of internal assessments are mandatory unless for the courses otherwise mentioned in the BoS.

18.3 For courses having both theory and practical components

a) Marks of theory - external examination : 20

b) Marks of practical - external examination : 60

c) Marks of internal evaluation : 20

18.4 For Internship with Project

Marks of external evaluation : 80

Marks of internal evaluation : 20

| Components of External Evaluation of Project | Marks |
|---|---|
| Dissertation (External) | 50 |
| Viva-Voce (External) | 30 |
| Total | 80 |

*Marks for dissertation may include industrial Visit if proposed in the syllabus.

| Components of internal Evaluation of Project | Marks |
|---|---|
| Punctuality | 5 |
| Experimentation/Data Collection | 5 |
| Skill Acquired | 5 |
| Report | 5 |
| Total | 20 |

*All four components of internal assessments are mandatory unless for the courses otherwise mentioned in the BoS

### 18.5 For Internships

There will only External evaluation for Internships.

| Components of External Evaluation of Internship | Marks |
|---|---|
| Dissertation (External) | 50 |
| Viva-Voce (External) | 30 |
| Marks awarded by the organization/company/institution/agency (External) | 20 |
| Total | 100 |

*Marks for dissertation may include the report of field visit done as part of internship if proposed in the syllabus.

### 18.6 For OJT

There will be only internal evaluation for OJT. Components of Internal valuation-OJT

| Components of Internal Evaluation of OJT | Marks |
|---|---|

| | |
|---|---|
| Punctuality | 10 |
| Subject Knowledge/Viva | 20 |
| Report | 50 |
| Marks awarded by the organization/company/institution/agency (External) | 20 |
| Total | 100 |

## 19. ATTENDANCE EVALUATION FOR ALL PAPERS

| % of attendance | Marks |
|---|---|
| 90 and above | 5 |
| 85 – 89 | 4 |
| 80-84 | 3 |
| 76-79 | 2 |
| 75 | 1 |

(Decimals are to be rounded to the next higher whole number)

## 20. ASSIGNMENTS

Assignments are to be done from Ist to VIth Semesters. At least two assignments should be done in each semester for all courses.

## 21. SEMINAR

A student shall present a seminar every semester for each course.

## 22. INTERNAL ASSESSMENT / TEST PAPERS

22.1 At least two internal test papers are to be attended in each semester for each course. The evaluations of all components are to be published and are to be acknowledged by the candidates. All documents of internal assessments are to be kept in the department for five years and shall be made available for verification by the College. The responsibility of evaluating the internal assessment is vested on the teacher(s), who teaches the course.

22.2 In case of any grievances regarding internal assessment, students can

follow the procedures mentioned below under Grievance Redressal Mechanism - clause number 23 in regulation.

22.3 The CoE shall make arrangements for giving awareness of the internal evaluation components to students immediately after the commencement of the I$^{st}$ semester.

22.4 The internal evaluation marks/grades in the prescribed format should rech the office of the Controller of Examinations, St. Albert's College before the commencement of study leave in each semester.

## 23. GRIEVANCE REDRESSAL MECHANISM WITH RESPECT TO INTERNAL EVALUATION

The internal assessment shall not be used as a tool for personal or other types of vengeance. A student has all rights to know how the teacher arrived at the marks. There is a provision for grievance redressal regarding internal evaluation which operates at four levels. Complaints regarding the internal evaluation shall be brought to the notice of the teacher concerned in the first instance. If the student is not satisfied with the decision of the teacher concerned, he/she may appeal to the Departmental Grievance Redressal Committee which shall have the Head of the department, the class Tutor, and the teacher against whom the complaint is made, as members. The student will also have the freedom to make further appeals to the College Level Grievance Redressal Committee which shall have the Principal, the COE, and the concerned Head of the department, as members. If the student is not satisfied, he may appeal to the Governing Body.

Level 1: Class level: The cell is chaired by the class tutor and the course teacher or a teacher nominated by the Head of the Department.

Level 2: Department level: The department cell chaired by the Head of the Department, Examination Coordinator and teacher-in-charge as members.

Level 3: College level: A committee with the Principal as Chairman, Examination Coordinator, HOD of concerned Department and a senior teacher nominated by the college council as members.

## 24. EXTERNAL EXAMINATION (END SEMESTER EXAMINATION)

24.1 The external examination of all semesters shall be conducted by the College at the end of each semester.

24.2 Students having a minimum of 75% average attendance for all the courses

only can register for the examination. Condonation of shortage of attendance to a maximum of 10 days in a semester subject to a maximum of 2 times during the whole period of the programme may be granted by the college on valid grounds. This condonation shall not be counted for internal assessment. The benefit of attendance may be granted to students attending University/College union/Co-curricular activities by treating them as present for the days of absence, upon producing participation/attendance certificates, within one week, from competent authorities through the class tutor, HoD and Dean of Student Affairs and endorsed by the Principal. This is limited to a maximum of 10 days per semester and this benefit shall be considered for internal assessment also. Those students who are not eligible even with the condonation of shortage of attendance will not be readmitted.

24.3 The women students can avail maternity leave as per the M.G.U order No. 490/AC A 1/2023/MGU dated 16/01/2023.

24.4 There shall be special supplementary exams only for the fifth semester. For reappearance/improvement for other semesters, the students can appear along with the next batch.

24.5 There shall be no provision for supplementary examination for the internal assessment.

24.6 A pass in the internal assessment is mandatory for registering for the End semester examination.

24.7 A student who registers his/her name for the external exam for a semester will be eligible for promotion to the next semester provided he/she meet the academic requirements.

24.8 All courses shall have a unique alphanumeric code.

24.9 There is no provision for betterment of internal evaluation marks as well as marks for Practical/OJT/Internship/Project/Viva.

## 25.PATTERN OF EVALUATION FOR EXTERNAL EXAMINATION – PRACTICAL/INTERNSHIP WITH PROJECT

The components of End Semester Examination of Practical/Internship with Project have to beset by the Chairman of the Boards of Studies concerned.

All students are required to complete Hands-on training (HOT)/On-job training

(OJT), Internship and a project, as directed in the respective syllabus. The project can be done individually or as a group, as decided by the Department. The HOT and OJT has to be done during the period as prescribed in the particular semester of the programme. The project, if it isa requisite of the syllabi, has to be done in the final year of the programme. The reports of HOT and OJT (in duplicate) have to be submitted to the department during the particular semester prescribed in the programme and the report of the project (in duplicate) is to be submitted to the department in the sixth semester. The project report should be produced before the examiners appointed by the College.

For reappearance/ improvement, the students can appear along with the next batch. A student who registers his/her name for the external exam for a semester will be eligible for promotion to the next semester.

## 26. PATTERN OF QUESTIONS

Questions shall be set to assess knowledge acquired, standard and application of knowledge, application of knowledge in new situations, critical evaluation of knowledge, and the ability to synthesize knowledge. The question setter shall ensure that questions covering all skills are set. She/he shall also upload a detailed scheme of answer type, short essay type/problem-solving type, and long essay type questions to be generated from the question bank. A question paper shall be a judicious mix of short answer type, short essay type /problem-solving type, and long essay type questions and to be generated from the question bank.

### 26.1 Pattern of questions for External Examination for Theory paper without Practical.

| Pattern | Total no. of questions | Number of questions to be answered | Marks of each question | Total marks |
|---|---|---|---|---|
| Very Short Answer type | 12 | 10 | 2 | 20 |
| Short Answer (Not to exceed 60 words) | 9 | 6 | 5 | 30 |
| Long essay | 4 | 2 | 15 | 30 |
| TOTAL | 25 | 18 | | 80 |

26.2 Pattern of questions for external examination for courses having both

theory and practical components.

| Theory assessment – Short Answer Type | | | | |
|---|---|---|---|---|
| Pattern | Total no. of questions | Number of questions to beanswered | Marks of each question | Total marks |
| Short essay/ problem | 8 | 5 | 4 | 20 |

| Skill Assessment – Practical | | | | | |
|---|---|---|---|---|---|
| Record | Theory/Procedure/ Design | Activity/ Design/ Performance | Result | Viva | Total |
| 10 | 10 | 20 | 10 | 10 | 60 |
| | | Total | | 80 | |

26.3 Mark division for LAB examination

| Record | Theory/Procedure /Design | Activity/Design/ Performance | Result | Viva | Total |
|---|---|---|---|---|---|
| 10 | 20 | 25 | 15 | 10 | 80 |

## 27. MARK CUM GRADE CARD

The College under its seal shall issue to the students a MARK CUM GRADE CARD on completion of each programme, which shall contain the following information:

27.1 Name of the College

27.2 Title & Model of the B. Voc. Programme

27.3 Name of the Semester

27.4 Name and Register Number of the student

27.5 Date of publication of result

27.6 Code, Title, Credits, and Maximum Marks (Internal, External & Total) of each course opted in the semester.

27.7 Internal, External and Total Marks awarded, Grade, Grade point, and Credit point in each course opted in the semester.

27.8 The total credits and total credit points in the semester.

27.9 Semester Credit Point Average (SCPA) and corresponding Grade.

27.10 Cumulative Credit Point Average (CCPA), CPA corresponding to General and skill Courses.

27.11 The final Mark cum Grade Card issued at the end of the final semester shall contain the details of all courses taken during the final semester examination and shall include the final Grade (SCPA) scored by the candidate from 1st to 5th semesters, and the overall Grade for the total programme.

## 28. RANK/POSITION CERTIFICATE

The college publishes a position list of the top 5 candidates for each programme after the publication of 6th-semester results. Position certificate shall be issued to candidates who secure positions from 1st to 3rd in the rank list. Candidates shall be ranked in the order of merit based on the CCPA scored by them. Grace marks awarded to the students should not be counted in fixing the rank/position. Rank certificate and position certificate shall be signed by the Controller of Examinations.

There shall be 3 level monitoring committees for the successful conduct of the programme. They are -

Department Level Monitoring Committee (DLMC), comprising the HOD and two senior-most teachers as members.

College Level Monitoring Committee (CLMC), comprising the Principal, Controller of Examinations, and A.O/Superintendent as members.

Governing body.

## 29. TRANSITORY PROVISION

Not with standing anything contained in these regulations, the Governing body shall, for one year from the date of coming into force of these regulations, have the power to provide by an order that these regulations shall be applied to any programme with such modifications as may be necessary.

The Governing body is authorized to make necessary criteria for eligibility for higher education in the grading scheme, if necessary. The Governing body is also authorized to issue orders for the perfect realization of the Regulations.

Annexure I: Model Mark Cum Grade Card

# St. Albert's College (Autonomous)

Ernakulam-682 018, Kerala, India.

Accredited by National Assessment and Accreditation Council (NAAC)

at A Grade ISO 9001: 2015 Certified

Affiliated to Mahatma Gandhi University, Kottayam, Kerala

## GRADE CARD

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NAME OF THE CANDIDATE | | | | | | | | | | Student Photo | | | |
| PERMANENT REGISTER NUMBER (PRN): | | | | | | | | | | | | | |
| DEGREE | | | | | | | | | | | | | |
| PROGRAMME | | | | | | | | | | | | | |
| STREAM | | | | | | | | | | | | | |
| NAME OF THE EXAMINATION | | | | | | | | | | | | | |
| DATE OF ISSUE | | | | | | | | | | | | | |
| COURSE CODE | COURSE TITLE | MARKS | | | | | | | | GP | GRADE | CGP | RESULT |
| | | | INTERNAL | | EXTERNAL | | TOTAL | | | | | | |
| | | CREDITS | AWARDED | MAXIMUM | AWARDED | MAXIMUM | AWARDED | MAXIMUM | | | | | |
| General Component | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Skill Component | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | TOTAL | | | | | | | | | | | | |
| | SEMESTER RESULT | SCPA: | | | | | | | | SG: | | | |

Controller of Examinations

Principal

Annexure II: Consolidated Model Mark cum Grade Card

# St. Albert's College (Autonomous)

Ernakulam-682 018, Kerala, India.

Accredited by National Assessment and Accreditation Council (NAAC) at A Grade ISO 9001: 2015 Certified

Affiliated to Mahatma Gandhi University, Kottayam, Kerala

## CONSOLIDATED MARK CUM GRADE CARD

| | |
|---|---|
| NAME OF THE CANDIDATE | |
| PERMANENT REGISTER NUMBER (PRN) | |
| DEGREE | |
| PROGRAMME | |
| STREAM | |
| DATE OF BIRTH | |
| DATE OF ELIGIBILITY | |

Student Photo

| | | SEMESTER RESULTS | | | | | |
|---|---|---|---|---|---|---|---|
| SEMESTER | MARKS AWARDED | MAXIMUM MARKS | CREDITS | SCPA | GRADE | MONTH AND YEAR OF PASSING | RESULT |
| SEMESTER 1 | | | | | | | |
| SEMESTER 2 | | | | | | | |
| SEMESTER 3 | | | | | | | |
| SEMESTER 4 | | | | | | | |
| SEMESTER 5 | | | | | | | |
| SEMESTER 6 | | | | | | | |
| TOTAL | | | | | | | |

| | PROGRAMME PART RESULTS | | | | | |
|---|---|---|---|---|---|---|
| PROGRAMME PART | MARKS AWARDED | MAXIMUM MARKS | CREDIT POINTS | CREDITS | CCPA | GRADE |
| GENERAL COMPONENTS | | | | | | |
| SKILL | | | | | | |

| COMPONENTS | | | | | | |
|---|---|---|---|---|---|---|
| TOTAL | | | | | | |

| FINAL RESULT | | | |
|---|---|---|---|
| CREDITS | CCPA | GRADE | RESULT |
| | | | |

| COURSE CODE | COURSE TITLE | MARKS | | | | | | | | RESULT |
|---|---|---|---|---|---|---|---|---|---|---|
| | | CREDITS | AWARDED | INTERNAL MAXIMUM | AWARDED | EXTERNAL MAXIMUM | AWARDED | TOTAL MAXIMUM | | |
| SEMESTER 1 | | | | | | | | | | |
| General Components | | | | | | | | | | |
| | | | | | | | | | | |
| Skill Components | | | | | | | | | | |
| | | | | | | | | | | |
| SEMESTER RESULT | | SCPA: | | | | | | | | SG: |
| SEMESTER 2 | | | | | | | | | | |
| General Components | | | | | | | | | | |
| | | | | | | | | | | |
| Skill Components | | | | | | | | | | |
| | | | | | | | | | | |
| SEMESTER RESULTS | | SCPA: | | | | | | | | SG: |
| SEMESTER 3 | | | | | | | | | | |
| General Components | | | | | | | | | | |
| | | | | | | | | | | |
| Skill Components | | | | | | | | | | |
| | | | | | | | | | | |
| SEMESTER RESULT | | SCPA: | | | | | | | | SG: |

| | | | | |
|---|---|---|---|---|
| SEMESTER 4 | | | | |
| General Components | | | | |
| | | | | |
| Skill Components | | | | |
| | | | | |
| SEMESTER RESULT | SCPA: | | SG: | |
| SEMESTER 5 | | | | |
| General Components | | | | |
| | | | | |
| Skill Components | | | | |
| | | | | |
| SEMESTER RESULT | SCPA: | | SG: | |
| SEMESTER 6 | | | | |
| General Components | | | | |
| | | | | |
| Skill Components | | | | |
| | | | | |
| SEMESTER RESULT | SCPA: | | SG: | |

Controller of Examinations Principal

## Annexure III: Reverse side of the mark cum Grade Card (Common to all Semesters) DESCRIPTION OF EVALUATION PROCESS

### Grade and Grade Point

The evaluation of each course comprises Internal and External components with the ratio 1:4 for all courses. Grade and grade points are given on a 7-point scale based on the percentage of marks (internal + external) as given in table I. Decimals are corrected to next higher whole number.

Table I

| % of Marks | Grade | Grade Point |
|---|---|---|
| 95 and above | O – Outstanding | 10 |
| 90 to below 95 | A+ – Excellent | 9 |
| 80 to below 90 | A - Very Good | 8 |
| 70 to below 80 | B+ - Good | 7 |
| 60 to below 70 | B – Above Average | 6 |
| 50 to below 60 | C – Average | 5 |
| 40 to below 50 | P – Pass | 4 |
| Below 40 | F – Fail | 0 |
| | Ab (Absent) | 0 |

### Credit Point and Credit Point Average

Credit point (CP) of a course is calculated using the formula CP = C x GP Where C = Credit, GP = Grade Point

Credit Point average of a semester (SCPA) or Cumulative Credit Point Average (CCPA) for a programme is calculated using Total Credit point, TC = Total Credit

| CCPA | Grade |
|---|---|
| 9.5 and above | O– Outstanding |
| 9 to below 9.5 | A+ – Excellent |
| 8 to below 9 | A - Very Good |
| 7 to below 8 | B+ – Good |
| 6 to below 7 | B – Above Average |
| 5 to below 6 | C – Average |
| 4 to below 5 | P – Pass |
| Below 4 | F – Failure |

Note: A separate minimum of 30 % marks each for internal and external (for both Theory and practical) and an aggregate minimum of 40 % is required for a pass in a course. To pass in a programme, a separate minimum of Grade E for all the individual courses and an overall grade E or above is mandatory. If a candidate secures Grade F for any of the courses offered in a semester or a programme only grade F will be awarded to that semester/Programme until the candidate improves this to Grade E or above within the permitted period.

| | |
|---|---|
| Read By | |
| Verified By | |

QR Code

# Programme Design

| SEMESTER I | | | | | |
|---|---|---|---|---|---|
| Sl. No | Course Code | Course Title | GC/SC | Hours/ Weeks | Credits |
| 1 | ENG1CCT0323 | Basic English Skills | GC | 4 | 4 |
| 2 | FMG1CMP0123 | Study skills for Sports and Exercise Science I | GC | 4 | 4 |
| 3 | FMG1CMT0123 | Foundations of Health, Fitness and Physical Education | GC | 4 | 4 |
| 4 | FMG1CRP0123 | Fundamentals of Weight Training | SC | 4 | 5 |
| 5 | VMG1CRT0123 | Principles of Management | SC | 4 | 5 |
| 6 | FMG1CRT0123 | Fundamentals of Anatomy & Physiology | SC | 5 | 5 |
| 7 | FMG1OJT0123 | OJT–1 | SC | | 3 |

| SEMESTER II | | | | | |
|---|---|---|---|---|---|
| Sl. No | Course Code | Course Title | GC/SC | Hours/ Week | Credits |
| 1 | ENG2CCT0323 | Advanced English Skills | GC | 4 | 4 |
| 2 | FMG2CMP0123 | Study skills for Sports and Exercise Science - II | GC | 5 | 4 |
| 3 | VEC2CMT0123 | Business Economics | GC | 4 | 4 |
| 4 | FMG2CRT0123 | Test and Measurement in Physical Education and Sports | SC | 6 | 6 |
| 5 | FMG2CRT0223 | Fundamentals of Yoga | SC | 6 | 6 |
| 6 | FMG2CPR0123 | Internship-1 | SC | | 6 |

| SEMESTER III | | | | | |
|---|---|---|---|---|---|
| Sl. No | Course Code | Course Title | GC/ SC | Hours/ Weeks | Credits |
| 1 | FMG3CMT0123 | Introduction to Exercise Physiology | GC | 4 | 4 |
| 2 | VEN3CMT0223 | Environment Science and Human Rights | GC | 4 | 4 |
| 3 | FMG3CMT0323 | Foundations of Kinesiology and Biomechanics | GC | 4 | 4 |
| 4 | FMG3CRT0123 | Introduction to Sports and Exercise Psychology | SC | 4 | 5 |
| 5 | FMG3CRT0223 | Client Testing and Training | SC | 4 | 5 |
| 6 | FMG3CRP0123 | Fitness and Conditioning | SC | 5 | 5 |
| 7 | FMG3OJT0123 | OJT-2 | SC | | 3 |

| SEMESTER IV | | | | | |
|---|---|---|---|---|---|
| Sl. No | Course Code | Course Title | GC/SC | Hours/ Weeks | Credits |
| 1 | FMG4CMT0123 | Business Entrepreneurship | GC | 5 | 4 |
| 2 | FMG4CMT0223 | Nutrition, Obesity and Weight Management | GC | 4 | 4 |
| 3 | FMG4CMT0323 | Aerobics and Fitness - Theory and Practice | GC | 4 | 4 |
| 4 | FMG4CRT0123 | Advance Training - Principles and Methods | SC | 6 | 6 |
| 5 | FMG4CRP0123 | Yoga for Fitness | SC | 6 | 6 |
| 6 | FMG4CPR0123 | Internship-2 | SC | | 6 |

| SEMESTER V |
|---|

| Sl. No | Course Code | Course Title | GC/SC | Hours/ Week | Credits |
|---|---|---|---|---|---|
| 1 | FMG5CMT0123 | Customer Service, Marketing & Sales | GC | 4 | 4 |
| 2 | FMG5CMT0223 | Introduction to Sports Management | GC | 4 | 4 |
| 3 | FMG5CMT0323 | Basics of Research Methodology, ICT & Statistics | GC | 4 | 4 |
| 4 | FMG5CRT0123 | Introduction to Physiotherapy & Injury Management | SC | 5 | 5 |
| 5 | FMG5CRT0223 | Yoga Therapy and Remedial Treatments | SC | 4 | 5 |
| 6 | FMG5CRT0323 | Massage Manipulations - Theory and Practice | SC | 4 | 5 |
| 7 | FMG5OJT0123 | OJT-3 | SC | | 3 |

| SEMESTER VI | | | | | |
|---|---|---|---|---|---|
| Sl. No | Course Code | Course Title | GC/SC | Hours/ Week | Credits |
| 1 | FMG6CMT0123 | First Aid and Emergency Management | GC | 5 | 4 |
| 2 | FMG6CMT0223 | Corporate Readiness Program | GC | 4 | 4 |
| 3 | FMG6CMT0323 | Facility Management, Operations and Design | GC | 4 | 4 |
| 4 | FMG6CRT0123 | Exercise Programming for Medically referred Clients | SC | 6 | 6 |
| 5 | FMG6CRT0223 | Fundamentals of Sports Medicine and Rehabilitation | SC | 6 | 6 |
| 6 | FMG6CPR0123 | Internship with Project | SC | | 6 |

# Detailed Syllabus: Semester I

## General Component: Basic English Skills (ENG1CCT0323)

60 Hours 4 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Recognize the speech sounds and suprasegmental features.
- Familiarize different dialects and the accents.
- Demonstrate the features of listening, reading and speaking skills.
- Develop skills in face to face and telephonic communication as well as in group discussions.
- Builds the ability to use English for performing some of the most common communicative functions in academic, social and professional situation.

### Module I (12 Hours)

Speech Sounds: Phonemic symbols, Vowels, Consonants, Syllables, Word stress, Stress in polysyllabic words, Stress in words used as different parts of speech, Sentence stress, Weak forms and strong forms, Intonation.

### Module II (12 Hours)

Accents: Awareness of different accents - American, British and Indian, Influence of the mother tongue.

### Module III (12 Hours)

Listening: Active listening, Barriers to listening, Listening and note taking, Listening to announcements, Listening to news on the radio and television.

### Module IV (12 Hours)

Speaking: Word stress and rhythm, Pauses and sense groups, Falling and rising tones, Fluency and pace of delivery, Art of small talk, Participating in conversations, Making a short formal speech, Describing people, place, events and things, Group discussion skills and telephone skills.

### Module V (12 Hours)

Reading: Theory and Practice, Scanning, Surveying a textbook using an index reading with a purpose, Making predictions, Understanding text structure, Locating main points, Making inferences, Reading graphics, Reading critically, Reading for

research.

References


- V. Sasikumar, P Kiranmai Duttand Geetha Rajeevan. (2017). *Communication Skills in English*. Cambridge University Press and Mahatma Gandhi University.
- Anderson, Kenneth, Joan. (2008). Study Speaking: *A Course in Spoken English for Academic Purposes*. New Delhi: CUP
- Sasikumar,V., Kiranmai Dutt and Geetha Rajeevan. (2007). *Study Listening: A Course in Listening to Lectures and Note-taking*, Tony Lynch New Delhi: CUP.

## General Component: Study Skills for Sports and Exercise Science - I Practical (FMG1CMP0123)

60 Hours 4 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Identify the benefits of physical exercise.
- Execute various movements in sport and exercise.
- Demonstrate different fitness apparatus
- Identify different means for developing a healthy life style
- Evaluate the benefits of different knowledge and skills working with individuals.

### Fundamentals of Training

- Floor exercises
- Basic Gymnastic exercises, Aerobics
- Recreational games and sports
- Weight Training
- Use of various apparatus of fitness - Balls, Benches, Boxes, Hula hoops
- Core training and stability
- Testing various Physical, Anthropometric, Physiological and Psychological parameters

## General Component: Foundation of Health, Fitness and Physical Education (FMG1CMT0123)

60 Hours 4 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Illustrate the meaning and definition of health and hygiene
- Explain the benefits of health, fitness and hygiene.
- Categorize the different aspects of physical education
- Explain the knowledge about growth and development
- Classify the different body types of personality trait.

### Module I (12 Hours)

**Health**: Meaning, definition, importance, Health education - meaning, definition, aims and objectives, scope, Factors affecting health, Dimensions of health, Hygiene - meaning, definition, importance, Personal Hygiene.

### Module II (15 Hours)

**Fitness:** Meaning, need and importance, Physical, Mental and social aspects of fitness, Warm-Up and Cooling Down, Health related Physical Fitness; Skill related Physical Fitness.

### Module III (6 Hours)

**Physical Education**: Meaning, Definitions, Scope and Importance, aims and objectives.

### Module IV (12 Hours)

**Biological Foundation:** Growth and Development - Meaning, Definition, Principles, Heredity, Environment, Anatomical and Physiological Difference Between Male and Female, Age - Chronological, Anatomical and Physiological, Mental.

### Module V (15 Hours)

**Sociological and Psychological Foundations:** Society, Marriage, Community, Social Control Group - Primary & Secondary, Crowed& Public, Social Stratifications,

Individual Differences, Attitude, Aggression, Anxiety and Attention, Body Types - Kretchmer & Sheldon Classification, Personality - Meaning, Definition, Characteristics and Dimensions.

References


- Rawat, Sanjay, A. (2018). *History, Principles and Foundation of Physical Education* (BPEd. New Syllabus), 2nd Edition, Sports Publication.
- Aggarwal, J. (2010). *Theory and Principles of Education: Philosophical and Sociological bases of Education*, New Delhi: Vikas Publishing House Pvt. Ltd.
- Arrow, Harold. M. (1988). *Man and Movement: Principles of Physical Education,* 3rd Edition, Philadelphia: Lea and Febiger.

## Skill Component: Fundamentals of Weight Training - Practical (FMG1CRP0123)

75 Hours 5 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Discuss the need and importance of weight training
- Identify the weight training exercise for rehabilitation
- Demonstrate usages of different weight training apparatus
- Identify the different weight training exercises for upper and lower extremities
- Demonstrate the knowledge about different methods of weight training for different sports and games

Upper Extremity

Biceps Curl (variations), Triceps Curl, Bench press, Skull Crusher, Triceps Extension, Upright Row, Shoulder Press, Dumbbell Thruster.

Lower Extremity

Leg Press, Step-Up, Walking Lunge, Squat (variations), Leg extension, Hamstring Curl.

Core

Standing Weighted Twist, Plank and Rotate, Seated Russian Twist, Dumbbell Crossover Punch, Reverse Lunge with Twist.

## Skill Component: Principles of Management (VMG1CRT0123)

75 Hours 5 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Identify the relevance and need of management.
- Recall the types of plans and process of planning.
- Differentiate the process of formal and informal organization.
- Describe the strategies for performance appraisal.
- Explain the principles and theories of direction, leadership and motivation

### Module I (10 Hours)

Nature and Process of Management: Schools of Management Thought - Management Process School, Human Behavioural School, Decision Theory School, Systems Management School, Contingency School - Managerial Role, Basics of Global Management.

### Module II (15 Hours)

Planning: Objectives, Types of plans - single use plan and repeated plan, MBO, MBE, Strategic Planning and Formulation. Decision making - types and process of decision making – forecasting.

### Module III (15 Hours)

Organizing & Staffing: Types of organization - formal and informal, line and staff, functional
Organization structure and design - span of control, delegation and decentralization of authority and responsibility - organizational culture and group dynamics.

### Module IV (20 Hours)

Staffing: Systems approach to HRM, Performance appraisal and career strategy, HRD: Meaning and concept.

### Module V (15 Hours)

Directing: Motivation, meaning, need for motivation, Theories of motivation - Herzberg and McGregor, Leadership – Importance, Styles of leadership, Traits of leadership, Managerial Grid by Blake and Mounton, Leadership as a Continuum by Tannenbaum and Schmidt, Path Goal Approach by Robert House (in brief) Controlling - Concept, Significance, Methods of establishing control.

References


- Moshal B.S. *Principles of Management*, New Delhi: Ane Books India.
- Bhatia R.C. *Business Organization and Management*, New Delhi: Ane Books Pvt.Ltd.
- Richard Pettinger. *Introduction to Management*, New York: Palgrave Macmillan.
- Koontzand O'Donnel. Principles of Management, New Delhi: Tata McGraw-Hill Publishing Co. Ltd.
- Terry G.R. *Principles of Management*, New Delhi: D.B. Taraporevala Sons & Co.Pvt.Ltd.
- Govindarajan Mand, Natarajan S. *Principles of Management*, New Delhi: PHI.
- Meenakshi Gupta. Principles of Management, New Delhi: PHI.

## Skill Component: Fundamentals of Anatomy & Physiology (FMG1CRT0123)

75 Hours 5 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Explain the structure and functions of cell and tissue.
- Summaries the anatomical structure of human body. Assess the structure and functions of different systems of human body.
- Classify the major muscle groups and their locations in human body.
- Enumerate the energy systems for aerobic and anaerobic exercise.

### Module I (15 Hours)

**Introduction to Anatomy and physiology in the field of fitness management:** Meaning and Definition of anatomy and physiology, Introduction of Cell and Tissue - Definition, Structure, Function, Types, and cell division, Blood - composition, Function, Coagulation.

### Module – II (15 Hours)

**Skeletal system:** Function, types of bone and their classification, axial and appendicular skeleton.

Joints of the body and their types.

**Muscular system:** Function, types of muscles, structure of skeletal muscle, Properties of muscles - Excitability, Contractility, extensibility, Elasticity, Tendon & Ligaments – muscle tension relationship.

### Module III (15 Hours)

**Brief introduction to Structure and functions of:** Respiratory, Circulatory, Digestive system, Nervous system, Endocrine system, Excretory system, and Reproductive system

### Module IV (15 Hours)

Definition of physiology and its importance in the field of fitness management, Nerve control of muscular activity - Neuromuscular junction, transmission of nerve

impulse across it, Types of muscular contraction, Sliding filament theory.

Module V (15 Hours)

**Energy system:** Phosphagen system (anaerobic), Oxidative system, Glycolysis (Aerobic), Aerobic & anaerobic contributions to exercise.

References


- Tortora, G. J., & Derrickson, B. H. (2018). *Principles of Anatomy and Physiology*. John Wiley & Sons.
- Marieb, E. N. (2015). *Essentials of Human Anatomy & Physiology,* 11th Edition. Harlow: Pearson Education.
- Saladin, K. S., McFarland, R., Gan, C. A., & Cushman, H. N. (2014). *Essentials of anatomy & physiology*. McGraw - Hill Education.
- Openstax, College (2013), *Anatomy and Physiology*. Houston: Rice University.
- Cinnamon, Vanputte et.al (2011), *Seeley's fundamentals of Human Anatomy and Physiology*, New Delhi: Tata McGraw Hill Publishing Company Limited, 7th Edition.
- Basimajain, John. V and Slonecker, Charles. E Grant's, (1997). *Method of Anatomy*, New Delhi: B.I Waverly PVt. Ltd.
- Tina Sanders & amp; Valerie C. Scanlon (2007). *Essentials of Anatomy and Physiology*, Philadelphia: F. A. Davis Company, 5th Edition.

## Skill Component: OJT-1 (FMG1OJT0123)

2 Weeks 3 Credits

### Course Outcomes

After successful completion of this 2 - week course, (3 credit) students will be able to

- Identify the use of different weight training apparatus
- Identify the correct weight training equipment for developing different muscles and develop strategies for the same.

# Detailed Syllabus: Semester II

## General Component: Advanced English Skills (ENG2CCT0323)

60 Hours 4 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Develop judgmental skills.
- Develops evaluation and problem-solving skills.
- Identify basic grammar to use English language accurately.
- Create an awareness about different types of official writings to enhance official communication skills.
- Build the ability to do presentations in a better way.

### Module I (12 Hours)

Critical Thinking: Introduction to critical thinking, Benefits, Barriers, Reasoning, Arguments -Deductive and inductive arguments, Fallacies, Inferential comprehension Critical thinking in academic writing – Clarity, Accuracy, Precision, Relevance.

### Module II (12 Hours)

Research for Academic Writing and the Writing Process: Data collection, Use of print, electronic sources and digital sources, Selecting key points - Note making, paraphrasing, summary, Documentation, Plagiarism, Title, Body – paragraphs, Introduction and conclusion, Revising Proof-reading.

### Module III (12 Hours)

Accuracy in Academic Writing: Articles, Nouns and prepositions, Subject - verb agreement - Phrasal verbs, Modals, Tenses, Conditionals, Prefixes and suffixes, Prepositions, Adverbs, Relative pronouns, Passives, Conjunctions, Embedded questions, Punctuations, Abbreviations.

### Module IV (12 Hours)

Writing Models: Letters - Letters to the editor, Resume and covering letter, E - Mail, Seminar papers, Project reports, Notices, Filling application forms, Minutes, agenda, Essays.

### Module V (12 Hours)

Presentation Skills: Soft skills for academic presentations, Effective communication skills, Structuring the presentation - Choosing appropriate medium, Flip charts, OHP, Power Point presentation, Clarity and brevity, Inter - action and persuasion, Interview skills, Group Discussions.

References

Anderson, Marilyn, Nayar, Pramod, K. D. & Sen, Madhuchandra. *Critical Thinking, Academic Writing and Presentation Skills*, Pearson Education and Mahatma Gandhi University.

## General Component: Study Skills for Sports and Exercise Science - II Practical (FMG2CMP0123)

60 Hours 4 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Demonstrate the knowledge of different skills of different games.
- Demonstrate the knowledge of using various protective sports gear in different games.
- Analyze the different fitness levels for maximizing the performance of various sports.
- Evaluate the qualities of a good coach/trainer.
- Describe the Rules and Regulations of different games.

### Practical

**Basic skills of Football**: Passing, Dribbling, Shooting, throwing, Goal keeping

**Basic skills of Cricket:** Spin - off, Leg Spin, Fast Bowling - out off spin, in spin. Front foot shot, Front foot defense, front foot drive, front foot glance. Back foot shot, Back foot drive, back foot defense, cut shot, fielding

**Basic skills of Hockey:** hit, scoop, dribbling, receiving, flick, pass

**Basic skills of Basketball**: Shooting, Passing, Dribbling

**Basic skills of Judo:** Ukemi-Yoko, MaiMawari, Koho, KumiKata, Kuzhushi, OSoto Gari, OGoshi, Kubi Nagae, Kesagatame, Yokoshiho Gatame

**Basic skills of Wrestling:** Stance, Motion, Level change, Penetration, Lifting, Backstep, Backarch, Hand fighting, Takedowns

**Basic skills of Athletics:** Track and Field's Events

## General Component: Business Economics (VEC2CMT0123)

60 Hours 4 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Understand about managerial economics and uses of managerial economics.
- Understand about business cycle and phases of business cycle.
- Evaluate demand analyses and types of demand.
- Understand about production function and managerial use of production function.
- Understand about different market structure.

### Module I (12 Hours)

**Managerial Economics:** Introduction, Definition, Scope and uses of Managerial Economics. Role of a managerial economist. Difference between managerial economics and pure economics.

### Module II (12 Hours)

**Business cycles:** Phases of a business cycle. Economic systems- Capitalist, Socialist, Mixed economy. Inflation: Definition, Courses of inflation, Control of inflation. Banking: Functions of Central Banks, Functions of Commercial Banks. Monetary Policy, Fiscal Policy.

### Module III (12 Hours)

**Demand:** Demand Analysis, meaning of demand, the law of Demand, Determinants of demand, Types of demand, Law of Diminishing Marginal Utility, Consumer Surplus. Elasticity of demand, Price elasticity of demand, Income elasticity of demand, cross elasticity of demand.

### Module IV (12 Hours)

**Production:** Production function, Managerial use of Production function, Law of diminishing returns, Law of returns to scale, Economies of scale, Optimum combination of inputs. Pricing, Pricing policy and Practices, Cost plus pricing, rate of return pricing, pricing of competing firms, pricing of new products, price leadership, price discrimination.

Module V (12 Hours)

Market structure, Prefect competition, Monopoly, Monopolistic competition and oligopoly.

References


- Dean, Joel, *Managerial economics*, Prentice Hall of India 2.
- Varshney, R.L., & Maheshwari, K.L., *Managerial Economics*, New Delhi: Sultan Chand & Sons Private Ltd.
- Kasi Reddy M., & Saraswathi, S. *Managerial Economics and Financial Accounting,* New Delhi: PHI Learning.
- D. M. Mithani, *Managerial economics*, Himalaya Publishing House.
- Mehta, P.L., *Managerial Economics*, New Delhi: Sultan & Chand.
- Trivedi, M.L., *Managerial Economics Theory and Applications*, New Delhi: McGraw Hill Education Private Ltd.
- Dwivedi, D.N., *Managerial Economics*, New Delhi: Vikas Publishing House Private Limited.
- Gopalkrishna, *Managerial Economics*, Mumbai: Himalaya Publishing House.
- Craig H Petersen, W Cris Lewis & Sudhir K Jain, *Managerial Economics*, Pearson,4th Edition.

## Skill Component: Test and Measurement in Physical Education and Sports (FMG2CRT0123)

90 Hours 6 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Explain the need and importance of different tests and measurements in sports.
- Assess the standardized test, objective and subjective test, skill test.
- Identify different methods for administrating test.
- Classify different tests for measuring physical fitness and motor fitness.
- Assess the different specific fitness tests for different games.
- Students will be introduced to various fitness test & evaluation methods and will made them able to measure the fitness level of the clients to start or improve their workouts.

### Module I (18 Hours)

**Evaluation:** Need and Importance, Meanings of terms - Test, Measurement and Evaluation, Principles of Test, Measurement and Evaluation, Criteria of Test, Scientific authenticity (reliability, objectivity, validity and availability of norms).

### Module II (18 Hours)

**Test Classification:** Classification of tests, Objective and Subjective tests, Knowledge and Skill tests.

### Module III (18 Hours)

**Construction and Administration of Test:** Test Administration, Construction of Physical Fitness / Efficiency Test, Construction of sports skill test, Construction of Sports Knowledge Test.

### Module IV (18 Hours)

Concepts of Physical Fitness, Motor Fitness and General Motor Ability, Measurement of Blood pressure, Vital capacity, Pulse Rate.

Measurement of Fitness Components: Muscular Strength, Muscular Endurance, Cardiorespiratory Endurance, Agility, Speed, Flexibility; Power, Balance.

Module V (18 Hours)

Fitness Tests: AAHPER Youth Fitness Test, Cooper's 12 Mins Run or Walk Test, Scot Motor Ability Test, Barrow Motor Ability Test, JCR Test, Tuttle Pulse Ratio Test, BEEP Test, Indiana Motor Fitness Test, Kraus–Weber Test, Skill Tests in different games - Lockhart and McPherson badminton test, Johnson basketball test, Mc Donald soccer test, Brady's Volley ball Skill Test & S.A.I Hockey test.

References


- Johnson, Berry Land Nelson Jack. L. (2016). *Practical Measurements and Evaluation in Physical Education,* Delhi: Surjeet Publication.
- Barron, H. M., & Mchee, R. (1997). *A practical approach to Measurement in Physical education*, Philadelphia: Lea and Febiger.
- Kansal, D.K. (1996). *Test and Measurement in Sports and Physical Education*, New Delhi: D.V.S. Publications.
- Bangsbo, J. (1994). *Fitness training in football: A scientific approach*, Denmark: Hock storm.
- Mathews, Donald K. (1973). *Measurement in Physical Education*, London: W Saunders Company.

## Skill Component: Fundamentals of Yoga (FMG2CRT0223)

90 Hours 6 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Explain the relevance of ashtanga yoga and asanas.
- Compare the benefits of pranayama and deep breathing.
- Determine the advantages of different pranayama techniques.
- Evaluate the importance of kriya, bandha and mudra
- Compare and apply the modern trends in yoga.

### Module I (20 Hours)

**Yoga:** Meaning and Definition, Scope and Importance, Aim and Objectives, History, Philosophy & Origin, Introduction to Yoga and Yoga Practices, Guiding principles to be followed by the yoga practitioner, Need and Importance of Yoga in Fitness management.

### Module II (16 Hours)

**Warming Up and Cooling Down** in yoga, Yoga and Exercise, Surya Namaskar and its benefits

**Basic 12 Asanas** - Supine/Prone/Sitting/Standing - Procedure and benefits

### Module III (18 Hours)

**Foundation of Yoga:** The Ashtanga Yoga – Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana and Samadhi, Relevance of eight limbs of yoga.

**Yoga in the Bhagavad - Gita:** Karma Yoga, Raja Yoga, Jnana Yoga and Bhakti Yoga.

**Yoga and Meditation**

### Module I2 (20 Hours)

**Mechanism of Breathing**: Internal Breathing, External Breathing.

**Sectional Breathing:** Abdominal breathing, Thoracic Breathing, Clavicular Breathing

**Effect of Asanas** on different systems of the body, Muscular, Skeletal, Circulatory, respiratory.

Module V (16 Hours)

**Kriya, Bandha and Mudra:** Importance of Kriya and its scientific approach, Importance of BANDHA and its scientific approach, Importance of MUDRA and its scientific approach. Latest trends - Power yoga, flotation yoga, musical yoga, yoga vacation, acrobatic yoga Ayurvedic view of life - role in disease prevention-health promotion.

References


- Hansaji, J.Yogendra. (2018). Yoga for All: Discovering the True Essence of Yoga, Kindle Edition
- Vishvketu, Yogrishi. (2017). Yogasana: The Encyclopedia of Yoga Poses, Kindle Edition
- David Coulter. (2010). Anatomy of Hatha Yoga, Kindle Edition
- Iyengar B.K.S. (1986). Light on yoga (5th ed), London: geoprhe allen and Unwin Publishing Ltd.
- Sharma, P.D. (1984), Yogasana and Pranayama for Health, India: Navneet Publication.
- Sarasvati, B. (1959). Fundamentals of Yoga: A Handbook of Theory, Practice, and Application.
- Yogi, Vithaldas. (1954), The Yoga system of health, London: Faber and faber Ltd.

## Skill Component: Internship-1 (FMG2CPR0123)

1 Month 6 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Identify the different training methods in developing physical fitness.
- Administer different training strategies for developing specific fitness.
- Identify the diet plan to be followed by the clients.

# Detailed Syllabus: Semester III

## General Component: Introduction to Exercise Physiology (FMG3CMT0123)

60 Hours 4 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Compare the benefits of physiology and exercise physiology.
- Explain the effects of exercise on various systems of human body.
- Demonstrate the knowledge of functions of various systems and its metabolic process.
- Explain the mechanism of respiration.
- Recall the concept of reflex arc and nervous control.

### Module I (12 Hours)

**Exercise Physiology:** Scope of exercise physiology, importance of exercise physiology in fitness management and personal training, physiological and psychological changes.

### Module II (12 Hours)

**Circulatory system:** Physiology of Respiratory system – Heart rate, stroke volume, lung capacity, VO2 max, tidal volume, blood pressure and pulse, cardiac cycle, cardiac output, pulmonary circulation, oxygen debt, second wind, Long-term and short-term adaptations in circulatory system.

### Module III (12 Hours)

**Skeletal system:** Structure and function of skeletal muscle, Effect of exercise on skeletal system, Exercise and muscle fatigue, muscle fiber types, functional characteristics of muscle fiber types, fiber types and performance.

**Muscular system:** Types of muscle, neuromuscular junction, muscular contraction, muscle exercises.

**Digestive system:** Metabolism (carbohydrate, Fat and protein), Mechanism of digestive system.

**Excretory system:** Structure and functions of excretory system, Functions of Kidney and Skin.

### Module IV (12 Hours)

**Respiratory system:** Respiratory organs, effect of exercise on respiratory system, mechanism of respiration – external respiration and internal respiration, pulmonary ventilation, Long - term and short - term adaptations in respiratory system.

Module V (12 Hours)

**Nervous System:** Major parts and its function, Reflex - arc, nerve control of muscular activity and energy production of muscular activity.

References


- Dilip Jaiswal. (2017). *Foundation of Sports and Exercise Physiology*, Daya publications.
- Betts, J. G., Young, K. A., Wise, J. A., et. al. (2013). *Anatomy and physiology*.
- Kenneyn W Larry, (2011), *Physiology of Sport and Exercise*, Human Kinetics.
- Dr. Ajmer Singh (2003), Essentials of Physical Education, New Delhi: Kalyani Publishers.
- Edward L Fox et al (1988), The Physiological Basis for Exercise and Sports, Brown & amp: Benchmark Publishers, V$^{th}$ ed.

## General Component: Environment Science and Human Rights (VEN3CMT0223)

60 Hours 4 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Demonstrate the awareness and concern about current environmental issues.
- Develop a healthy respect and sensitivity to environment.
- Distinguish between various ecosystems.
- Differentiate the functions of United Nations and other Global bodies.
- Develop pride in social and environmental activism

### Module I (12 Hours)

Multidisciplinary nature of environmental studies: Definition, scope and importance; Need for public awareness. Natural Resources: Renewable and non-renewable resources: Natural resources and associated problems.
a) Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forest and tribal people.
b) Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.
c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.
d) Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.
e) Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, Case studies.
f) Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification Role of individual in conservation of natural resources. Equitable use of resources for sustainable life styles.

### Module II (12 Hours)

Ecosystems: Concept of an ecosystem; Structure and function of an ecosystem; Producers, consumers and decomposers; Energy flow in the ecosystem; Ecological

succession; Food chains, food webs and ecological Pyramids: Introduction, types, characteristic features, structure and function of the given ecosystem, Forest ecosystem.

Biodiversity and its conservation: Introduction; Biogeographical classification of India; Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and option values; India as a mega-diversity nation; Hot-sports of biodiversity; Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts; Endangered and endemic species of India.

Module III (12 Hours)

Environmental Pollution: Definition, Causes, effects and control measures of- Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear hazards; Solid waste Management: Causes, effects and control measures of urban and industrial wastes.; Role of an individual in prevention of pollution, Pollution case studies; Disaster management: floods, earthquake, cyclone and landslides.

Social Issues and the Environment: Urban problems related to energy; Water conservation, rain water harvesting, watershed management; Resettlement and rehabilitation of people: its problems and concerns, Case studies; Environmental ethics: Issues and possible solutions; Climate change, global warming, acid rain, ozone layer depletion , nuclear accidents and holocaust, Case studies; Consumerism and waste products; Environment Protection Act; Air (Prevention and Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act; Issues involved in enforcement of environmental legislation; Public awareness

Module IV (12 Hours)

Introduction to Environment and Business - Introduction of ways in which business has and is responding to environmental and business issues, business and sustainable development; issues of corporate/business greening.

Green Entrepreneurship - What is green entrepreneurship, definition, meaning, scope, nature and characteristics. Green entrepreneurship in India. Difference between conventional and green entrepreneurship.

Module V (12 Hours)

**Human Rights** – An Introduction to Human Rights, Meaning, concept and development, Three Generations of Human Rights (Civil and Political Rights; Economic, Social and Cultural Rights).

**Human Rights and United Nations**– contributions, main human rights related organs - UNESCO, UNICEF, WHO, ILO, Declarations for women and children, Universal Declaration of Human Rights.

**Human Rights in India** – Fundamental rights and Indian Constitution, Rights for children and women, Scheduled Castes, Scheduled Tribes, Other Backward Castes and Minorities.

**Environment and Human Rights** - Right to Clean Environment and Public Safety: Issues of Industrial Pollution, Prevention, Rehabilitation and Safety Aspect of New Technologies such as Chemical and Nuclear Technologies, Issues of Waste Disposal, Protection of Environment.

Conservation of natural resources and human rights: Reports, Case studies and policy formulation. Conservation issues of western ghats - mention Gadgil committee report, Kasthurirengan report. Over exploitation of ground water resources, marine fisheries, sand mining etc.

Internal: Field study

- Visit to a local area to document environmental grassland/ hill /mountain
- Visit a local polluted site – Urban/Rural/Industrial/Agricultural Study of common plants, insects, birds etc
- Study of simple ecosystem-pond, river, hill slopes, etc
- (Field work Equal to 5 lecture Hours)

References


- Rajagopalan. R. (2016). *Environmental Studies from crisis and cure*, Oxford University Press.
- Bharucha Erach. (2013) *Text Book of Environmental Studies for undergraduate Courses.* University Press, 2nd Edition.
- Clark.R.S. *Marine Pollution*, Clanderson Press Oxford (Ref)
- Cunningham, W.P.Cooper, T.H.Gorhani, E & Hepworth, M.T. (2001) *Environmental Encyclopedia,* Mumbai: Jaico Publ. House.
- Sharma B.K., (2001). *Environmental Chemistry*. Meerut: Geo Publ. House.
- Mekinney, M.L & Schock.R.M. (1996). *Environmental Science Systems & Solutions.* Web enhanced edition.
- Heywood, V.H & Watson, R.T. (1995). *Global Biodiversity Assessment,* Cambridge University Press.

- Jadhav.H & Bhosale. V. M. (1995). *Environmental Protection and Laws*. Delhi: Himalaya Pub House.
- Rao M.N& Datta. A.K. (1987). *Waste Water treatment* Oxford & IBII Publication Co. Pvt. Ltd.
- E. P (1971). *Fundamentals of Ecology.* W.B. Saunders Co. USA 574p (Ref)
- Townsend C., Harper J, and Michael Begon, *Essentials of Ecology*, Blackwell Science.
- Trivedi R.K., *Handbook of Environmental Laws, Rules Guidelines, Compliances and Standards,* Vol I and II, Enviro Media.
- Trivedi R. K. and P.K. Goel, *Introduction to air pollution*, Techno-Science Publication.
- Wanger K.D., (1998) *Environmental Management.* Philadelphia: W.B. Saunders Co.

Human Rights

- S.K. Khanna. (2011). *Children and The Human Rights*, Common Wealth Publishers.
- Amartya Sen. (2009). *The Idea Justice*, New Delhi: Penguin Books.
- Sudhir Kapoor. (2001). *Human Rights in 21st Century*, Jaipur: Mangal Deep Publications.
- J.S. (1998). *Education for Human Rights and Democracy* (Shimla: Indian Institute of Advanced Studies.
- Shireesh Pal Singh, *Human Rights Education in 21st Century*. New Delhi: Discovery Publishing House Pvt. Ltd.

## General Component: Foundation of Kinesiology and Biomechanics (FMG3CMT0323)

60 Hours 4 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Demonstrate the knowledge of fundamentals of kinesiology.
- Classify the joints and its associated movements.
- Identify the origin, insertion and actions of different muscles of the body
- Analyze the structure, function and type of muscles and its contraction.
- Identify the various leverages and its application to human body.

### Module I (12 Hours)

**Introduction to Kinesiology and Sports Biomechanics:** Meaning and Definition of Kinesiology and Sports Biomechanics, Importance of Kinesiology and Sports Biomechanics in the field of Fitness Management, Athletes and Personal Trainers, Terminology of Fundamental Movements Fundamental concepts of following terms – Axes and Planes, Centre of Gravity, Equilibrium, Line of Gravity.

### Module II (12 Hours)

**Joints and Muscles:** Classification of Joints and Muscles, Types of Muscle Contractions, Fundamental concepts of following terms - Angle of Pull, All or None Law, Reciprocal Innervation and Inhibitions, Stretch Reflex.

### Module III (12 Hours)

**Major Body Articulations:** Shoulder, Elbow, Knee, Ankle, Wrist and Hip Joint.

### Module IV (12 Hours)

**Mechanical Concepts**: Force - Meaning, Definition, Types and its application, Lever - Meaning, definition, types and its application, Newton's Laws of Motion, meaning and its application, Projectile – Factors influencing projectile trajectory.

### Module V (12 Hours)

**Kinematics and Kinetics of Human Movement:** Linear Kinematics – Distance and Displacement, speed and velocity, Acceleration, Angular kinematics – Angular

Distance and Displacement, Angular Speed and velocity, Angular Acceleration. o Linear Kinetics – Inertia, Mass, Momentum, Friction. o Angular Kinetics – Moment of inertia, Couple, Stability.

References


- Katharine, F. Luttgens Kathryn. (2008). *Kinesiology - Scientific Basis of Human Motion*, Singapore: Mc Graw Will International Book Company.
- *Sports Mechanics for coaches,* Human Kinetics
- Peter M. Mcginnis. (1999). *Bio mechanics of Sport and Exercise*, 3rd revised Edition Human Kinetics.
- Hay, J. G. (1970). *The biomechanics of sports techniques.* Englewood Cliffs, N.J: Prentice Hall, Inc.
- Simonian, C. (1911). *Fundamentals of sport biomechanics.* Englewood Cliffs, N.J.: Prentice Hall Inc.

## Skill Component: Introduction to Sports and Exercise Psychology (FMG3CRT0123)

75 Hours 5 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Understand the relationship between human psychology and sports activities.
- Distinguish the nature and principles of traditional theories of learning and its implication in sports.
- Interpret the personal factors in perception, cognitive process involved in motor abilities.
- Interpret the relation of retention, reinforcement and motivation.
- Understand the concepts of personality traits in sports.

### Module I (16 Hours)

Sports Psychology: Meaning, nature and scope, psychological factors effecting physical performance, factors affecting sports learning and performance.

### Module II (15 Hours)

Learning: meaning, nature and principles, traditional theories of learning, laws of learning, learning curve and its characteristics, transfer of training, types, factors affecting transfer of training.

### Module III (14 Hours)

Perceptual Mechanism: Description and definition, personal factors in perception, perception and motor learning, cognitive process, relationship of intelligence motor abilities, physical factors.

### Module IV (16 Hours)

Motivation: motivation, types: extrinsic and intrinsic motivation, methods: reinforcement, success and failure, rewards and punishment, praise, appreciation and criticism, knowledge of results, feedback, concepts of retention and forgetting.

### Module V (14 Hours)

Personality: Meaning of personality, personality traits of sports men, effect of sports participation in personality.

Information Forecasting: Definition, Process, Component-Characteristic of forecast compound– Approaches- Forecast technique, Forecast error, E- Commerce.

References


- Moran, A., & Toner, J. (2017). *A critical Introduction to sport psychology,* Taylor & Francis.
- Cashmore, E. (2008). *Sport and Exercise Psychology: The key concepts.* Routledge.
- Jarvis, M. (2006). *Sport psychology: A student's handbook.* Routledge.
- M., & Scully, D. (2003). *Psychology in sport.* Taylor & Francis.
- Kand, Bhatia, K. & Purohit, Trinath. (2002). *Educational Psychology and Methods of teaching,* New Delhi, Kalyani Publishers.
- Daniel Gould and Robert S. Weinberg, (1995). *Foundations of Sport and Exercise Psychology*, Human Kinetics.
- Cratty, B.J. 1989). *Psychology in contemporary Sport,* Prentice Hall.

## Skill Component: Client Testing and Training (FMG3CRT0223)

75 Hours 5 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Explain the physical and psychological state of the clients through health screening.
- Examine the lifestyle disease through questionnaire.
- Determine the proper dietary habits.
- Determine the bio energetic pathways during aerobic and anaerobic exercises.
- Analyze the biochemical variables through test assessments.

### Module I (15 Hours)

**Client consultation and Health Appraisal:** Conduct and analysis of health screening and personal interview, understanding the present state of physical and psychological health of the client, Steps of the Client consultation, discussion of goals, Client - trainer agreement.

### Module II (15 Hours)

Physical activity readiness questionnaire, Life style inventories, Informed consent, Record keeping, Physical problems of the client: list out the problems, Hypertension, Hyper – cholosterolimia, Impaired fasting glucose level, Obesity Metabolic disease, Orthopedic conditions and disease, Medication, List risk factors for cardio-vascular disease.

### Module III (15 Hours)

Life style evaluation, Dietary intake and eating habits exercise and activity pattern, Stress Management, Interpretation of results, Initial risk stratification, Referral process, Medical examination, Exercise testing, Explanation of basic terms, Mineral density - ossification, Biomechanical lever system (bone- muscle), Torque and Range of Motion, Explain the physical activity and public health guidelines.

### Module IV (10 Hours)

Explanation of aerobic and an aerobic energy path ways, intensity and duration of exercise, VO2 max-determination of exercise intensity.

Module V (20 Hours)

Assessment of Case study, risk factor analysis, assessment recommendation, administration and organization of fitness assessments, Fitness testing protocols and norms - heart rate - Blood pressure, Body Mass Index - Bio Electrical Impedance Analysis - Cardio Vascular Endurance, Muscular Strength, Muscular Endurance, flexibility. Develop and implementation of exercise program for - cardiorespiratory and musculoskeletal fitness, Explain the precaution and recommendations for safe and effective fitness programming - phase of behavioral change -strategies for minimizing injury, healthy and effective weight lees programme, Liability and legal issues pertaining to fitness professionals.

References


- Earle, Roger W. and Baechle, Thomas R. (2021). *NSCA's Essentials of Personal Training*, Human Kinetics.
- Goodman, Jonathan. (2015). *Personal Trainer Pocket book: A Handy Reference for All Your Daily Questions*, Create space Independent Pub.
- Goodman, Jonathan. (2015). *Ignite the Fire: The Secrets to Building a Successful Personal Training Career.*
- Plowman, S. A., & Meredith, M. D. (2013). *Reference guide*.
- Thatcher, Ron. (2005). *Selling Personal Training*, Canada: Trafford Publishing.
- Brooks, D. (2004). *The complete book of personal training,* Human Kinetics.

## Skill Component: Fitness and Conditioning (FMG3CRP0123)

75 Hours 5 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Understand the weight training, resistance training, interval training exercises.
- Understand the speed, strength, endurance and flexibility training.
- Explain the body components
- Understand the Anthropometric measurement and gain knowledge about B.M.I

Weight Training Exercise, Resistance training, Resistance band exercises, Core training- Swiss ball, Bosu ball Exercises, Circuit training for strength, endurance, strength endurance improvement, & calorie burning, Interval training – strength, endurance, Flexibility training – static training, PNF stretching, Endurance training – continuous, repetition, fartlek method, Skill related Test: Flexibility, Strong foot, Endurance.

MEASUREMENT & EVALUATION

Anthropometric measurement

Health related physical fitness test:

Cardio Vascular Endurance: Beep test, run/walk test, step test.

Muscular strength & endurance: 1 RM, Pull Up, Push Up, Bent Knee Sit Up

Flexibility: Sit & Reach, Shoulder Flexibility.

Body Composition: WHR, BMI, Digital Fat monitor. Physiological test: Heart Rate, Respiratory Rate.

Skill related physical fitness test:

Speed: 30 m dash Flying test.

Agility: Shuttle Run, SEMO Agility run.

Balance: Stork Stand Test, Endurance Test, Strength Test.

Reaction time: Hand Reaction Time, Foot Reaction Time.

Power: Standing Broad Jump, Vertical jump, Medicine Ball Throw.

## Skill Component: OJT-2 (FMG3OJT0123)

2 Weeks 3 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Demonstrate the different strength training exercise by using different gym equipment.
- Identify the various associated muscles while doing different gym exercises

# Detailed Syllabus: Semester IV

## General Component: Business Entrepreneurship (FMG4CMT0123)

60 Hours 4 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Define, identify and apply the principles of viability and growth through a strategy plan for implementing their own business.
- Prepare startups business plans emphasizing financing marketing and organizing.
- Identify the new venture financing and growth financing for existing business.
- Evaluate formalities for setting up a small business enterprise.
- Create a project report.

### Module I (12 Hours)

Introduction Entrepreneurship: Introduction to Entrepreneur, Entrepreneurship and Enterprise, Importance and Relevance of the Entrepreneur, Factors Influencing Entrepreneurship, Pros and Cons of being an Entrepreneur, Women Entrepreneurs, Problems and Promotion, Types of Entrepreneurs, Characteristics of a Successful Entrepreneur, Competency Requirement for Entrepreneurs.

### Module II (12 Hours)

Entrepreneurial traits, motivation and development Types of startups; Entrepreneurial class Theories; Entrepreneurial leadership; International Entrepreneurship - Opportunities and challenges; Source of innovative ideas; Entrepreneurship and creativity; Techniques for generating ideas, Impediments to creativity.

### Module III (12 Hours)

Entrepreneurial Development Institutions and Policy initiatives Implementation of the Project: Financial Assistance through SFC's, SIDBI, Commercial Banks, KVIC, NABARD. Financial incentives and Tax Concessions for MS & MEs, Policies for North Eastern Region; Role of government in entrepreneurship development; recent trends, Vision 2020 of Sikkim.

Module IV (12 Hours)

**Business Plan Development and Launching:** Preparing the Business Plan (BP) Typical BP format, Financial Aspects of the BP, Marketing Aspects of the BP, Human Resource Aspects of the BP, Technical Aspects of the BP, Social Aspects of the BP, Preparation of BP, and Common Pit falls to be avoided in Preparation of a BP.

Module V (12 Hours)

**Business Launching, Feedback & Follow-up:** Launching of Enterprise Steps involved in floating a Business Venture, Location, Formalities, Trade license, Approvals, Environmental Clearance, Registration. Feedback & Follow-up: Activity Course will involve development of feasible Business Plan by students in Groups.

References


- Ramachandran, K. (2016), *Entrepreneurship Development,* India: Tata Mc Graw Hill.
- Roy, Rajeev (2015), *Entrepreneurship,* Oxford University Press.
- Kumar, Arya, (2010) *Entrepreneurship: Creating and Leading an Entrepreneurial Organization*, India: Pearson Education.
- Kuratko, D. F., and T. V. Rao, (2010) *Entrepreneurship: A South-Asian Perspective, Cengage Learning.*
- Hishrich., Peters, (2008) *Entrepreneurship: Starting, Developing and Managing a New Enterprise*, Irwin.

## General Component: Nutrition, Obesity and Weight Management (FMG4CMT0223)

60 Hours 4 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Demonstrate the knowledge of various macro and micro nutrients.
- Identify the energy aspects of diet and their distributions.
- Solve various diseases in relation to malnutrition.
- Solve various lifestyle diseases.
- Propose a suitable diet plan for a community

### Module I (12 Hours)

**Nutrition:** Meaning, Definition and Concept of nutrition, Definition of nutrients, Classification of nutrients and its functions - Carbohydrates, Proteins, Fat, Vitamins and Minerals, Fiber and its properties, Properties and functions of water.

### Module II (12 Hours)

**Metabolism of Nutrients:** Digestion and absorption of nutrients, Carbohydrate metabolism, Protein metabolism, Fat metabolism, Metabolism of micronutrients, Energy requirement and its calculation, Energy balance equation (positive, negative and neutral), Energy aspects of diet and their distribution.

### Module III (12 Hours)

Balanced diet, Malnutrition, Under and Over nutrition, Nutritional Deficiencies, Public Health Nutrition -Nutritional status, Trends in nutritional status in India, Strategies to overcome nutritional challenges.

### Module IV (12 Hours)

**Disorders of energy metabolism:** Obesity, Underweight, Body Weight Management, Non -Communicable diseases such as cardiovascular disorders, Diabetes Mellitus, Hypertension and Renal diseases, Pulmonary disorders, Nutrition in critical care, Cancer and allergies and food intolerances.

Module V (12 Hours)

**Meal planning:** Nutrition during pregnancy, Lactation, Infancy, Toddlerhood, Preschool stage, School going children, and adolescence. Growth and development during different stages of life cycle, Nutrition for adults, Older adults and old populations, Sports nutrition, Nutrition and hydration guidelines for athletes, Strategies to promote healthy weight management in athletes. Use of nutritional supplements in sports- use and effects.

References


- Verma, S., & Hussain, M. E. (2017). *Obesity and diabetes: an update. Diabetes & Metabolic Syndrome: Clinical Research & Reviews*.
- Jason, Fung, (2016). *The Obesity Code: Unlocking the Secrets of Weight Loss,* Greystone Books, 1st Ed.
- Summerfield, L. M. (2015). *Nutrition, exercise, and behavior: An integrated approach to weight management*. Cengage Learning.
- Nicholas Bjorn, (2015) *Nutrition: Health, Weight Loss and Wellness,* Space Independent Publishing Platform.
- Bender, D. A. (2014). *Introduction to nutrition and metabolism*. CRC Press.
- Gary Taubes. (2008). *Good Calories, Bad Calories: Fats, Carbs, and the Controversial Science of Diet and Health*.
- Fred, Brouns. (2003). *Essentials of Sports Nutrition*. John Wiley & Sons.

## General Component: Aerobics and Fitness -Theory and Practice (FMG4CMT0323)

60 Hours 4 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Understand about the aerobic and anaerobic activities.
- Demonstrate improved endurance by being able to perform vigorous, nonstop movements.
- Demonstrate improved coordination and rhythm by being able to perform the dances taught in class.

Aerobic exercise and techniques:

**Methods of Training:** Continuous Training, Circuit Training, Interval Training, HIIT Work Out, Medicine Ball Exercises, Repetition Training, Plyometrics Training, Functional Training, Cross FIIT Training, Fartlek Training, Weight Training, Flexibility Training – Static, Dynamic / Ballistic, Proprioceptive Neuromuscular Facilitation (PNF).

**Exercise Equipment:** Swiss ball, Body Weight Resistance, Free weights, Kettle ball Training, Ladder Exercises, Exercise Bands.

**Modern Training Methods:** Pilates, Tae Bo Exercises, Tabata Training, Aerobics - Kids aerobics, Exercise Aerobics Dance Aerobics, Zumba, Step Aerobics, Skipping Aerobics, Aerobic Kickboxing, Low Impact Exercises.

## Skill Component: Advance Training - Principles and Methods (FMG4CRT0123)

90 Hours 6 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Define the objectives and principles of sports training.
- Assess the role of training load in sports and games.
- Identify the correct training plan according to the levels of competition.
- Explain the types and components of physical fitness.
- Classify the different types of training and its benefits.

### Module I (18 Hours)

Sports Training: Meaning and definition of sports training, Aims and objectives of sports training, Definition of conditioning and training, Principles of sports training.

### Module II (18 Hours)

Load: Training load, different types of loads, adaptation, super compensation, significant of load components - volume, density, intensity, frequency, and recovery, FIIT, LIIT, HIIT, Overload symptoms and factors, Fatigue and tackling of overload.

### Module III (18 Hours)

Training Plan: short term plan – School, College, District, University, State, National etc. Long term plan, Commonwealth, Asian world, Olympic etc. Periodization: Linear and nonlinear, Types - Single, Double and Triple, Training Cycle, Aim and Content periodization in sports, Phases of Periodization.

### Module IV (18 Hours)

Fitness Components: Definition, Types and Methods of Physical fitness components, Training means for the development of motor abilities - strength, Endurance, Speed, Flexibility, and Co - coordinative abilities.

### Module V (18 Hours)

**Different types of training:** Circuit Training, Fartlek Training, Interval Training, Plyo Metric Training etc., Talent Identification, Psychological skill training of the players.

References


- Dr A. K. Uppal. (2020). *Sports Training,* Revised Edition. New Delhi: Friends Publications.
- Rathee N. Singh Ajmer, Jagadish Bains et.al., (2008). Essentials of Physical Education, Luthiana.
- John Bun. (2003). *Scientific Principles of Coaching*, Text Book Publishers, Latest Edition.
- Frank W. Dick. (1980). *Sports Training Principles*, London: Lepus Books, 2nd Edtion.
- Hardayal Singh. (1984). *Sports Training - General Theory and Method*, NSNIS, Patiala, 2nd Edition.

## Skill Component: Yoga for Fitness (FMG4CRP0123)

90 Hours 6 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Understand the value of yoga practice in daily life.
- Demonstrate the knowledge to prescribe yoga practices for fitness.
- Identify the different asanas for various therapeutic purpose.
- Demonstrate knowledge of the value of advanced yogic asanas in daily life
- Demonstrate different cleansing asanas.
- Analyze the effect of asanas on various systems.

Practical

Asanas

Tadasana, Vrikshasana, AdhoMukhoSvanasana, Trikonasana, Kursiasana, Naukasana, Bhujangasana, Paschimottanasana, Balasana, Sukhasana, Surynamaskar, Halasana, Bhujagasana, Ardha-shalabhaasana, Ardha-matsyandraasana, Paschimottanasana, Vajrasana, Suptavajrasana, Sarvangasana, Pavanamuktasana, Chakrasana.

Practical

Pranayama, Bandha, Mudra

Practical

Shat - karmas (Shodan Kriyas)

Neti, Dhauti, Nauli, Basti, Kapalbhati, Trataka

## Skill Component: Internship-2 (FMG4CPR0123)

1 Month 6 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Demonstrate various exercises for developing fitness components.
- Identify the different training methods in developing physical fitness.
- Analyze different training strategies conducted for developing specific fitness.

# Detailed Syllabus: Semester V

## General Component: Customer Service, Marketing & Sales (FMG5CMT0123)

60 Hours 4 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Ability to understand about strategic framework of CRM
- Gain knowledge about customer segment lifetime value.
- Ability to understand about multichannel integration process.
- Understand about analytical CRM.
- Ability to manage front office and back-office management.

### Module I (12 Hours)

Customer Relationship Management Concepts: Acquiring customers, customers loyalty and optimizing customer relationships, strategic frame work of CRM – origins, the role of CRM, Types of CRM, Key cross functional CRM processes.

### Module II (12 Hours)

CRM Strategy: CRM strategy development process, customer strategy, The CRM value creation process – customer profitability, customer acquisition and retention. Cross selling Customer segment life time value.

### Module III (12 Hours)

The multi-channel integration process: Customers and the use of channels, sales force, call center, internet website, direct mail, e-commerce, m-commerce, channel integration, channel strategies-role of customer channel experience and channel categories.

### Module IV (12 Hours)

Analytical CRM: Information management process in CRM. The data repository - data marts data ware house. Analytical tools for data mining – visualization tools, segmentation, prediction tools, neural networks, decision trees, affinity grouping, churn management, customer profiling and profitability analysis, OLAP, Data protection, privacy codes of practice.

Module V (12 Hours)

IT systems: Front-office and back-office applications - sales force automation, call center management, marketing automation campaign management, selecting a CRM solution, Organizing for CRM implementation, CRM change and project management, Establishing a CRM performance monitoring system - standards, metrics and key performance indicators, CRM budget and CRM return on investment.

References


- Dintsis, Danil. (2020). *Customer Relationship Management and IT*, London: IntechOpen.
- Hofmaier, Richard. (2015). *Marketing, Sales and Customer Management,* De Gruyter Oldenbourg.
- Dyche, Jill. (2009). *The CRM Handbook: A Business Guide to Customer Relationship Management, India: Dorling Kindersley Pvt. Ltd.*
- Buttle, Francis. (2008). Customer Relationship Management: Concepts and Technologies, New York: Routledge Taylor & Francis Group.
- Tschohl, John. (2007), *Achieving Excellence Through Customer Service*, 5th Edition, USA: Best Sellers Publishing.

## General Component: Introduction to Sports Management (FMG5CMT0223)

60 Hours 4 Credits

### Course Outcomes

On completion of the course the students will have attained the following:

- Will acquire knowledge budget preparation.
- Gain knowledge about managing fitness center.
- Ability to understand the sources of financial support.
- Ability to understand supervision and monitoring techniques.

### Module I (12 Hours)

Sports Management: Meaning, Importance and scope of management in Physical education and sports, Major management functions, Theories and styles of leadership.

### Module II (8 Hours)

The Organization and structure of Physical education and sports in Schools Colleges, University, District and State level, Principles and guidelines for management organizations and structure.

### Module III (14 Hours)

Activity Management: Play field -Location, Area, Standard, Preparation, Layout and maintenance, Gymnasium - Construction, Allied facilities, Care and maintenance, Swimming Pool - construction, Allied facilities, Care and maintenance, Equipment - procedure of purchase, Store keeping - Care and maintenance and disposal

### Module IV (13 Hours)

Personnel Management: Principle of personnel management, personnel recruitment and selection.

Financial Management: Importance of financial management, Budget - Source of financial support, Accounting and petty cash.

Office management: Importance, functions and practice.

Module V (13 Hours)

**Programme management:** Intramurals - objectives, Extramural, objectives, Supervision - Scope and principles, Public relation - Need and importance, Principles and techniques.

References


- David Hassan. (2018). *Foundations of Sports Management – Managing Sport Business*, New York: Routledge, 2nd Edition.
- John Beechand Simon Chadwick. (2013). *The business of Sport Management*, NewYork: Pearson Education Limited.
- Singh Ajmer, Jagadish Bains et.al., (2008). *Essentials of Physical Education*, Luthiana.
- Russell Hoye, Aaron Smith, et.al. (2006). *Sport Management: Principles and Applications*, New York: Routledge.
- S.S. Roy. (1995). *Sports management*, New Delhi: Friends Publications.

## General Component: Basics of Research Methodology, I.C.T and Statistics (FMG5CMT0323)

60 Hours 4 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Demonstrate the role and importance of research in sports.
- Identify the research problem.
- Identify the appropriate statistical methods to solve the research problem.
- Distinguish between primary and secondary data.
- Interpret the test findings in an appropriate manner by using the correct reporting procedures.

### Module I (10 Hours)

**Research Methodology:** Meaning, Definition, Objectives, Significance, Research Process - different steps, Criteria for a good research, Types of research - descriptive, analytical, applied, fundamental, quantitative, qualitative, empirical and conceptual.

### Module II (12 Hours)

**Selection of research problem:** Sources, Technique involved in defining a problem, Research design – Meaning, need and importance, Sampling design, Criteria of selecting a sampling procedure, Sampling process.

### Module III (20 Hours)

**Statistics**: Mean, Medium, Mode, Standard Deviation, Introduction to Information Technology, Word Processing, Spreadsheet, Advanced features of spreadsheet, MS - PowerPoint.

### Module IV (10 Hours)

**Types of data:** Primary data - Meaning, Advantages and disadvantages, Methods of collecting primary data, Sources, Secondary data - Meaning, Advantages and disadvantages, Methods of collecting primary data, Sources.

### Module V (8 Hours)

**Interpretation:** Meaning, Techniques of interpretation, Research Proposal, Report

writing, Course work, References, Bibliography, Assignments, Project reports etc.

Internal: Research Project

References


- Krishnamoorthi, O. R. & Kumar, Ranjith. (2005). *Research Methodology,* 2nd Edition, India: Pearson Education.
- Kothari, C. R. (2004). *Research Methodology: Methods and techniques*, New Delhi: New Age International publishers.
- Sharma, K. R. (2002). *Research Methodology: Concepts and Studies*, New Delhi: RK Books. House.
- Ahuja, Ram. (2001). *Research Methods,* New Delhi: Rawat Publications.

## Skill Component: Introduction to Physiotherapy & Injury Management (FMG5CRT0123)

75 Hours 5 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Acquire knowledge about principles and ethics of physiotherapy.
- Identify the basic principles of physiotherapy and modalities.
- Experiment with different physiotherapy modalities like, hydrotherapy, magnetotherapy, cryotherapy etc.,

### Module I (15 Hours)

Physiotherapy: Meaning, Definition and Concept, Guiding principles of physiotherapy, Need and importance of physiotherapy in the field of fitness management, History of physiotherapy - world and India, Responsibilities of a physiotherapist.

### Module II (15 Hours)

Introduction of Therapeutic modalities: Electrotherapy - Ultrasound, Electrical stimulation, Traction unit, Inferential unit, Diathermy, TENS, Wax bath.

Thermotherapy: Hot bags, Hot water fermentation, Hot water baths (immersion or whirlpool), Contoured thermos - cuffs, Commercial gel and chemical packs, Paraffin wax bath, Steam bath, Sauna bath.

Hydrotherapy: Cryotherapy, Whirlpool bath, Contrast bath, Vapocoolant sprays, Moist heat therapy, Fluidotherapy.

### Module III (15 Hours)

Therapeutic Exercises: Definition and scope of therapeutic exercises, Principles of therapeutic exercises, Effects and use of therapeutic exercises, Classification of therapeutic exercises.

### Module IV (15 Hours)

Free mobility exercises: Shoulder joint and Elbow joint, Wrist joint and Finger joint, Hip, Knee, Ankle and Foot joints, Trunk, Head and Neck joints.

Module V (15 Hours)

Preparation and safety measures for patient and equipment's, Therapeutic treatment for respiratory circulatory, Muscular and skeletal systems.

References


- Kumar, Pramod. (2020). *Sports Medicine, Physiotherapy and Rehabilitation*, New Delhi: Friends Publications.
- Pryor, Jenifer A. (2016). *Physiotherapy for Respiratory and Cardiac problems,* Elsevier Health Services.
- Porter, Stuart. (2013). *Tidy's Physiotherapy*, Elsevier Health Services.
- Norris, Christopher, N. (1993). *Managing Sports Injuries, A guide for students and Clinicians,* China: Elsevier.
- Downie, Patricia A. (1987). *Cash's text Book of Chest, Heart and vascular disorder for Physio therapy,* Elsevier Health Services.

## Skill Component: Yoga Therapy and Remedial Treatments (FMG5CRT0223)

75 Hours 5 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Explain the role of yoga for maintaining health and wellness.
- Summarize the physiological and psychological effects of asanas.
- Identify the diet plan in ayurvedic and modern science.
- Recall the yogic practices for mental health.
- Determine the effect of yoga and meditation for improving bodily structure and appearance– metabolic rate.

### Module I (20 Hours)

**Wellness and Wellbeing:** Meaning and Definition of Wellness, Concept of wellness and wellbeing, Yogic concept of healthy living, Holistic approach of health and happiness, Yogic concept of wellness and Ashtanga yoga of Patanjali, Fundamental Principles of Yoga Therapy - Application of Yoga Therapy in Traditional Yoga - Bhagavad-Gita, Definitions of Yoga in Bhagavad-Gita and their relevance in Yoga therapy.

### Module II (10 Hours)

**Asana:** Physiology of exercise, Asana - Types and Categories; Musculo skeletal system and mechanisms involved; Effect of Yogic practices in setting up the internal environment of the body, Concept of Yoga and Health in Indian Traditional Systems of Medicine, Yogic Concept of Health, Meaning and definitions, Role of Yogic Positive Attitudes for Healthy Living.

### Module III (15 Hours)

Effect of Asanas on ailments: Heart disease, diabetes, asthma, hypertension, digestive problems, back pain, neck pain, emotional stability, stress, fatigue, scoliosis, thyroid problems, arthritis, weakened immune system, Effect of yoga & mediation in stress relief, bodily structure & appearance, Metabolism, general characteristics, mental factors.

Module IV (15 Hours)

**Pranayama:** Mechanism of respiratory system and gas exchange, Regulation of respiration, Psycho - physiological effect of Pranayama, changing of ratio of oxygen and carbonic carbon- dioxide in our body; enabling different groups of muscles in breathing.

**Meditation:** Different types of meditation its impacts on central nervous system and peripheral nervous system, Different types of meditation its impacts on cardiovascular system, respiratory system, nerve - muscle physiology, Meditation its impacts on relaxation of each and every system of body like Menstrual Disorder (menstrual cramp, dysmenorrheal, pre-menstrual syndrome).

Module V (15 Hours)

**Yoga and Allied Science:** Basic principles of Ayurveda, Naturopathy, Therapeutic importance of Dinacharya and Ritucharya, Concept of Aahara, Vihara, Aachara and Vichara. Yogic Concept of Aahara - Diet and Nutrition, Importance of Diet, Role of Yogic Diet in old age, concept of Ayurveda and modern science. Yoga as preventive and promotive health care.

References


- Hansaji J.Yogendra. (2018). Yoga for All: Discovering the True Essence of Yoga, Kindle Edition.
- Vishvketu, Yogrishi. (2017). Yogasana: The Encyclopedia of Yoga Poses, Kindle Edition.
- Coulter, H. David. (2010). Anatomy of Hatha Yoga, Kindle Edition.
- Iyengar B.K.S. (1986). Light on yoga (5th ed), London: geoprhe allen and Unwin Publishing Ltd.
- Sharma, P.D. (1984), Yogasana and Pranayama for Health, India: Navneet Publication.
- Sarasvati, B. (1959). Fundamentals of Yoga: A Handbook of Theory, Practice, and Application.
- Yogi Vithaldas. (1954), The Yoga system of health, London: Faber and faber Ltd.

Skill Component: Massage Manipulations – Theory and Practice (FMG5CRT0323)

75 Hours 5 Credits

Course Outcomes

After successful completion of this course, students will be able to

- Illustrate the meaning and scope of massage.
- Analyze the physiological effects of massage on various systems in human body.
- Apply the different massaging techniques used for treatments
- Utilize different massaging techniques for relaxation.
- Explain the effects and contra-indications of various massage manipulations.

Module I (15 Hours)

Massage: Definition, Meaning, Ethics and History of Massage, Mechanical points to be considered - Manipulation, time of day for treatment, comfort and support of patient-positioning, Draping, bolstering, position of operator, using body weight, contact and continuity, Technique - Indications and contraindication.

Module II (15 Hours)

Physiological effects of massage on various body systems: Effect on Circulatory system, Excretory system, Muscular system, Nervous system, Metabolic system, Respiratory system, Skin.

Module III (15 Hours)

Classification of Massage: Based on character of technique - Stroking manipulation - Superficial stroking, Deep stroking or Effleurage, Pressure manipulation - Kneading - palmer & amp; digital kneading, ironing, Petrissage - picking up, wringing, skin rolling, Friction - Circular & transverse friction, Vibratory manipulation - Vibratory & amp; shaking, Tapotement or Percussion manipulation - Clapping, hacking, beating, pounding, tenting Contact heel percussion

Based on depth of tissue reached - Light massage, Deep massage.
Based on parts of body massaged - General massage, Local massage.
Based on means of application of pressure - Manual massage, Mechanical

massage.

Module IV (15 Hours)

**Techniques used for various parts of Body**: Massage for upper limb - scapular region, shoulder joint, upper arm, elbow joint, forearm, wrist joint, hand, Massage for lower limb - thigh, knee joint, leg, foot, ankle & amp; toes, Massage for back - neck and upper back, middle and lower back, gluteal region, Massage for face Massage for abdomen.

Module V (15 Hours)

**Sports Massage**: Introduction, role of massage in sports, Massage manipulations - Stroking, Effleurage, Petrissage, Acupressure, Tapotement, Vibration, Shaking, Ice massage, Categories of sports massage - pre-event massage, Intermediate massage, post, Event massage.

**Therapeutic application of Massage** - Relaxation, Oedema, Radical mastectomy, Venous ulcer, Painful neuroma, Bells palsy, Sprain and Strain, Fibrositis.

References


- Prosser, Edith. M. (2021). *Manual of Massage and Movements,* Museum of Osteopathic medicine.
- Zimaglia, (2018), *Sports Massage and Complementary Techniques*, Milan: Ed.Er.
- Allen, Laura. (2017). *Therapeutic Massage and Bodywork examinations*, China: Wolters Kluwer.
- Hollis, Margeret. (1999). *Practical Exercise Therapy*, Blackwell Scientific.
- Ylinen, Jari and Cash, Mel. (1988). *Sports Massage*, Scotland: Scotprint Ltd.

## Skill Component: OJT-3 (FMG5OJT0123)

2 Weeks 3 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Demonstrate the different exercises to the clients.
- Design a work out plan for individuals.

# Detailed Syllabus: Semester VI

## General Component: First Aid and Emergency Management (FMG6CMT0123)

60 Hours 4 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Acquire knowledge about principles and ethics of first aid.
- Administering basic life support skills including cardiopulmonary Resuscitation
- Identify the types of injuries and its related first aid.
- Be able to assess an emergency situation safely.

### Module I (12 Hours)

**Introduction to First Aid:** Meaning and Definition, Purpose, Principles and Ethics, Objectives of First Aid, ABC of First Aid, Contents of an ideal First Aid Kit.

### Module II (12 Hours)

**First in different cases:** First for Drowning, First Aid for Fire Injuries - First Aid for Severe Burns, First Aid for Mild Burns, First Aid for Injuries on the Play Field - Skin Injuries, Soft Tissue Injuries, Joint Injuries – Dislocation, Bone Injuries - Fractures.

### Module III (12 Hours)

**Dressing and Bandages:** Dressings - Sterile Wound Dressing, Sterile non - Adherent dressings, Improvised dressings, Bandages - Roller Bandages, Basic steps to successful use of a roller bandage, Applying Roller Bandages - lower arm or leg, elbow or knee, hand or foot, triangular Bandages, Sling - Arm Sling, Elevation Sling, Collar and Cuff Sling, Pad.

### Module IV (12 Hours)

**Athletic Injuries, First Aid and Safety:** Objectives, Different types of Sports Injuries - Soft Tissue Injury - Contusion, Abrasion, Laceration, Incision, Strain, Sprain, Bone Injury - Close Fracture and Open Fracture, Joint Injury - Dislocation, Treatment for Simple Sports Injuries, Prevention of Sports Injury, Safety Precautions.

### Module V (12 Hours)

**Acting in an Emergency:** The Human Body, Assessing the Victim, Cardiopulmonary Resuscitation (CPR) Automated External Defibrillators (AED), Airway Obstructions,

Controlling Bleeding, Shock, Wounds and Soft Tissue Injuries, Burns Head and Spinal Injuries Chest, Abdominal and Pelvic Injuries Bone, Joint and Muscle Injuries, Extremity Injuries and Splinting, Sudden Illness, Poisoning, Substance Misuse and Abuse, Bites and Stings, Cold and Heat Emergencies, Rescuing and Moving Victims.

References


- Piazza, Gina, M. (2014), *ACEP FIRST AID MANUAL*, 5th Edition: DK Publishers.
- Walker, Brad. (2007), *The Anatomy of Sports Injuries*, Second Edition North Atlantic Books.
- Workneh, Desta. (2004*), First Aid management and Accident Prevention*, Ethiopia Ministry of Education.
- Handal, Kathleen, A. (1992), *THE AMERICAN RED CROSS FIRST AID AND SAFETY HAND BOOK*, American Red Cross.

## General Component: Corporate Readiness Program (FMG6CMT0223)

60 Hours 4 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Identify skills and knowledge required in the contemporary work place
- Demonstrate effective use of various soft skills
- Apply the skills of teamwork and leadership to enable effective responses when working with others
- Develop professionalism and confidence
- Develop basic employability skills

### Module I (12 Hours)

**Understanding Self:** Where We Came from (Brainstorming about self), What important to the students, what he is good at, SWOC, SWOT analysis.

### Module II (12 Hours)

**Career Assessment:** Setting Goals, Career researching and job lead resources, Job Analysis, Values, writing skills (Business correspondence), Business communication and presentation skills

### Module III (12 Hours)

**The Work World:** How Do People Really Get Jobs, Beliefs about how people get jobs, Job discrimination, What Are Different Jobs Like, Interviews in different job fields, Identifying and Coping with Problems on the Job, Identifying potential problems, developing solutions, The Management and Organizational Skills, Getting organized, Time management.

### Module IV (12 Hours)

**Interview and Group Discussion:** Importance, Need, Advantages and disadvantages, Methods, Types, Do's and Don'ts, Etiquette: Physical and Digital Etiquette.

Module V (12 Hours)

**Campus to Corporate:** Building a Resume, Job Search, Applying for a Job, Identifying the barriers to success, My Career Plan, Networking.

References


- Suneela, M., Shehla, Farzana, & Dr. S. Radhika. (2020). *Understanding the Self*, 1st Edition, Neelkamal Publication Ltd.
- Pandey, Sharon. (2016). *Human Resource Management,* 2nd Edition, Mumbai: Vikas Publishing.
- Sherlekar, S. A & Sherlekar, V. S. (2009). *Principles of Business Management,* 3rd Edition, Mumbai: Himalaya Publishing House.
- Ramaswamy, T. (2003). *Principles of Management,* 5th Edition, Mumbai: Himalaya Publishing House.

## General Component: Facility Management, Operations and Design (FMG6CMT0323)

60 Hours 4 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Demonstrate the knowledge of principles of fitness training and evaluation.
- To acquire knowledge infrastructure facilities and maintenance of facilities.
- Facilitate fitness Centre guidelines and policies
- Demonstrate the knowledge of spa management operations

### Module I (10 Hours)

**Facility Design and planning:** Fitness center lay out, Electrical lay out, Locker Room set-up and amenities, Group fitness studio - size, flooring, mirrors, AV, Storage space - lay out and size, Ventilation, Lighting, and flooring options, Multipurpose rooms - massage, Fitness testing and evaluation, Office space.

### Module II (10 Hours)

**Maintenance of facilities:** Multi gym, Weight training equipment, Indoor, Outdoor, Swimming pools, Electrical machines, Exercise bikes, Treadmill, Hydraulic machines, Criteria to be followed in the selection of equipment, Body wraps, Elastic straps, Vibrating machines.

### Module III (15 Hours)

**Fitness center management and design:** Smart design and development, Facility design lay out, Space allocation for cardio strength, Group exercise, Recreation and locker rooms, Equipment recommendations, Facility operations, policies and procedures, Facility/equipment cleanliness and maintenance, Spa Management, Steam Bath, Sauna Bath, Jacuzzi operation.

### Module IV (15 Hours)

**Engaging programs and services:** Membership recruitment, Enrollment and Retention, Individual fitness consultation and Supervision, Motivational incentive programs and special events, Team based activities, Provide new members

program orientations, Facility marketing, sales and promotion.

Module V (10 Hours)

Risk management best practices for fitness facilities: Identify the potential risks, Evaluate the severity of the potential risks, Develop strategies to mitigate the potential risks.

References


- Bates, Mike et.al (2019). *Health Fitness Management*, 3rd Edition
- Sanders, Mary (2018). *ACSM's Health/Fitness Facility Standards and Guidelines,* 5th Edition.
- Howley, Edward, T. and Don, Franks, B. (1997). *Health Fitness Instructor's handbook.* 3rd Edition.
- Morgan W.P. (1997). *Physical Activity and Mental Health*, Taylor and Francis.
- Ikonian, T. (1995). *Fitness Walking*, Human Kinetics.

## Skill Component: Exercise Programming for Medically Referred Clients (FMG6CRT0123)

90 Hours 6 Credits

### Course Outcomes

On completion of the course the students will have attained the following:

- Will acquire knowledge about postures.
- Gain knowledge about different therapeutic movements.
- Ability to understand about the spinal strengthening exercise.
- Ability to equip themselves with key knowledge about goniometry and mobility.

### Module I (18 Hours)

Basics of mechanics - force, Gravity, Equilibrium, Levers, Elasticity, Axis, Planes; Newton's law of motion, basics of physiologic parameters - Oxygen Transport and oxygen saturation, Body Composition, Body Temperature, Basal metabolic rate, respiratory rate, blood pressure, heart rate.

### Module II (18 Hours)

Generation of action potential and its propagation: Early re-education / initiation muscle contraction. Re-education techniques and facilitating methods on various groups of muscles. Sliding filament theory, Types of muscle fiber and their response to various stimulation, Muscle weakness – Causes, Muscle paralysis - prevention of muscle wasting.

### Module III (20 Hours)

Fundamental positions: Lying, Sitting, Standing, Kneeling, Hanging etc. Definition and concept of posture - disadvantage of bad posture, body types (somatotypes) Test of posture (posture evaluation: posture Grid, IOWA Posture Test, New York Posture rating Test, Foot Impressions (Pedograph). Examinations of Knock Knee and Bowleg. Types of postural deviations - causes. Corrective exercise for Round shoulder, Kyphosis, Lordosis, Flat Chest, Scoliosis, Text neck.

### Module IV (16 Hours)

Therapeutic Physiology: Physiology of exercise, effect of exercise on various

systems – circulatory system, respiratory system, muscular system, Classification of Therapeutic Movements - passive movements-active movements-Isotonic-Isometric and Isokinetic movements. Rehabilitation exercises. Progressive Resistive Exercise. Importance of Relaxation.

Module V (18 Hours)

Exercise adherence and motivation: Progressive exercise in strengthening muscles, Strength exercise for Abdominal muscles, Spinal strengthening exercise, Goniometry, Mobility aid, Crutches walking - elbow crutches, measurements, Gait training, Guideline and precautions for clients having chronic conditions - Arthritis, Asthma, Cancer, COPD, Diabetes, Disabilities, Hypothyroidism, lower back pain, Osteoporosis, Pregnant women.

References


- Gardiner, Dena. (2022). *Principles of exercise Therapy*, CBS Publishers and Distributers Pvt. Ltd.
- Levange, K. Pamela and Norkin, Cynthia. (2011). *Joint Structure and Function,* Philadelphia: FA Davis Company.
- Colby, Allen, and Kisner Carolyn, (1999). *Therapeutic Exercise*, Philadelphia: FA Davis Company.
- American College of Sports Medicine. (1994). Guidelines for Exercise Testing and Prescription, Philadelphia: Lea & Febiger.

## Skill Component: Fundamentals of Sports Medicine and Rehabilitation (FMG6CRT0223)

90 Hours 6 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Concept, aims & scope of sports medicine
- Illustrate the components of sports medicine program and medical terminology.
- Identify the emergency first aid procedures and management of Injuries
- Experiment with the different therapeutic exercises and its procedures.
- Develop knowledge regarding causes, prevention and management of Injuries.

### Module I (18 Hours)

Introduction to Sports medicine: Meaning and Definition of Sports Medicine, History of Sports Medicine, Scope of Sports medicine in India and Abroad, Aims and Concept of Sports Medicine.

### Module II (18 Hours)

Sports Injuries: Causes & Mechanism of Sports Injuries, Prevention of sports injuries, Common Acute and Overuse injuries, Heat stroke and Heat illness, Individual events, Team Events, Contact and Non-contact sports, Water sports specific injuries, Over Use Training in Sports.

Sporting emergencies & first aid of injuries: Cardio pulmonary Resuscitation, Shock management, Internal and External bleeding, Splinting, Stretcher use - Handling and transfer, Management of Cardiac arrest, Acute asthma, Epilepsy, Drowning, Burn, Medical management of Mass Participation. AIDS in sports people.

### Module III (18 Hours)

Non-Traumatic Conditions: Illness, Infections, Hypertension, Urine abnormalities, Exercise induced Asthma; Anemia, Runner's high & exercise addiction. Age Specific Problems, Issues in the adolescents and children involved in sports, Exercise and Common Pulmonary Conditions, Exercises for special categories, Special problems of older athletes, Special concerns for handicapped athletes, Vitamins and exercise, Female Specific problems - Sports Amenorrhea, Injury to female reproductive tract, Menstrual Synchrony, Sex determination, Exercise and pregnancy, Eating disorders

in athletes.

Module IV (18 Hours)

Doping in Sports: List of banned drugs: their effects and side effects, Guidelines of sample (urine and blood) collection for dope testing, Methods of Drug testing, Relevance of Therapeutic use exemption in doping, Latest trends in doping, Performance enhancing supplements in sports and international regulations, Ergogenic Aids.

Module V (18 Hours)

Rehabilitation and Therapeutic Exercises: Define Rehabilitation, Goals and Objectives of Rehabilitation in Sports, Prehabiiltation, Modern concepts in rehabilitation, Definition, details of effects and uses of therapeutic exercises - Dynamic Exercises, Plyometric Exercises, Isokinetic Exercises, Manipulative Techniques, Kinetic chain exercises, Health club & fitness Concept, Use and misuse of equipment - Group therapy, Sauna bath, Prevention and rehabilitation of heart attack and diabetes, Basics of Cardiac Rehabilitation.

References


- Krogsgaard, Michael & Magnusson, Peter, et.al. (2008). *Textbook of Sports Medicine: Basic Science and Clinical Aspects of Sports Injury and Physical Activity,* Blackwell Science.
- Dr. P. K. Pandey. (2008). *Sports Medicine,* New Delhi: Khel Sahitya Kendra.
- NSCA Certification Commission (2001). *Exercise Technique. Checklist Manuel* Lincoln, NE; NSCA Certification Commission.
- Sherry, Eugene and Bokor, Des. (1997). *Sports Medicine, Problems and Practical Management,* UK: Greenwitch Medical Media.
- J. G. P Williams and P. N Sperryn. (1976). *Sports Medicine,* Great Britain: Butler & Tanner Ltd.

## Skill Component: Internship with Project (FMG6CPR0123)

1 Month 6 Credits

### Course Outcomes

After successful completion of this course, students will be able to

- Examine the various exercise protocols for lifestyle diseases
- Determine the different test protocols for finding the health status.
- Design an appropriate holistic approach for health care - using innovative trends.

# Gist of Changes

Need for Gist of changes

- To restructure the syllabus according to the need of the learners.
- To modify unnecessary modules and contents
- To introduce latest and update method of teaching and content, new knowledge and practices.
- During the planning phase the syllabus has been reviewed by BOS Committee to identify the areas that need to be changed.
- The syllabus plan has been finalized the course modification steps have to be taken.
- Revised existing syllabus and added new proposed syllabus presented and accepted according to change in BOS Committee meeting on 01.03.2023.

Gist of changes proposed in the syllabus of B. Voc. Fitness Management and Personal Training 2023 admission onwards.

Changes adopted in Syllabus

- Revised the course syllabus without affecting the content in different semester.
- Six common courses are compiled in to three courses (renamed) and added three new courses which is relevant to the programme.
- One Course changed from Theory to Practical.

| SEMESTER I<br>Skill Component | |
|---|---|
| Existing Syllabus | Proposed Syllabus |
| Course code: FMG1CRT0120 | Course code: FMG1CRT0123 |
| Course Title: Fundamentals of Yoga | Course Title: **Principles of Management** |

Removed **FMG1CRT0120 Fundamentals of Yoga** and added **FMG1CRT0123 Principles of Management (shifted from Semester VI)**

| SEMESTER I<br>Skill Component | |
|---|---|
| Existing Syllabus | Existing Syllabus |
| Course code: FMG1CRT0220 | Course code: FMG1CRT0220 |
| Course Title: Fundamentals of Anatomy & Physiology | Course Title: Fundamentals of Anatomy & Physiology |
| Module – II<br>Skeletal System - major bone of the body and their locations,<br>Muscular system-major muscle of the body and their locations<br><br>Module III & Module IV Merged<br><br>Module V<br>Bioenergetics--Glycogenoxidation, Fatoxidation, Proteinoxidation, Metabolic specify of training, oxygen update, | Module I<br>Brief Introduction of Anatomy and physiology in the field of fitness management - meaning and definition of anatomy and physiology<br>Module – II<br>axial and appendicular skeleton.<br>Joints of the body and their types.<br>Properties of muscles- Excitability, Contractility, extensibility, Elasticity<br>Tendon & Ligaments – muscle tension relationship.<br>Module III Merged Module IV |

| SEMESTER II<br>Skill Component | |
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| Existing Syllabus | Proposed Syllabus |
| Course code: FMG2CRT0220 | Course code: FMG2CRT0223 |
| Course Title: Fundamentals of Yoga | Course Title: **Fundamentals of Yoga** |
| Course Outcomes<br><br>After successful completion of this course, students will be able to<br>• Explain the relevance of ashtanga yoga and asanas.<br>• Compare the benefits of pranayama and deep breathing.<br>• Determine the advantages of different pranayama techniques.<br>• Evaluate the importance of kriya, bandha and mudra<br>• Compare and apply the modern trends in yoga. | Course Outcomes<br>After successful completion of this course, students will be able to<br>• Explain the relevance of ashtanga yoga and asanas.<br>• Compare the benefits of pranayama and deep breathing.<br>• Determine the advantages of different pranayama techniques.<br>• Evaluate the importance of kriya, bandha and mudra<br>• Compare and apply the modern trends in yoga.<br>Module I<br>Yoga: Meaning and Definition, Scope and Importance, Aim and Objectives, History, Philosophy & Origin, Introduction to Yoga and Yoga Practices, Guiding principles to be followed by the yoga practitioner, Need and Importance of Yoga in Fitness management.<br>Module II<br>Warming Up and Cooling Down in yoga, Yoga and Exercise, Surya Namaskar and its benefits<br>Basic 12 Asanas - Supine/ Prone/ Sitting/ Standing - Procedure and benefits<br>Module III |

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| | Foundation of Yoga: The Ashtanga Yoga – Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana and Samadhi, Relevance of eight limbs of yoga.<br>Yoga in the Bhagavad-Gita: Karma Yoga, Raja Yoga, Jnana Yoga and Bhakti Yoga.<br>Yoga and Meditation<br>Module I2<br>Mechanism of Breathing: Internal Breathing, External Breathing.<br>Sectional Breathing: Abdominal breathing, Thoracic Breathing, Clavicular Breathing<br>Effect of Asanas on different systems of the body, Muscular, Skeletal, Circulatory, respiratory<br>Module V<br>Kriya, Bandha and Mudra: Importance of Kriya and its scientific approach, Importance of BANDHA and its scientific approach, Importance of MUDRA and its scientific approach. Latest trends - Power yoga, flotation yoga, musical yoga, yoga vacation, acrobatic yoga Ayurvedic view of life - role in disease prevention-health promotion. |

| SEMESTER III<br>General Component | |
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| Existing Syllabus | Proposed Syllabus |
| Course code: VEN3CMT0220 | Course code: VEN3CMT0223 |
| Course Title: ENVIRONMENTAL SCIENCE AND HUMAN RIGHTS | Course Title: **ENVIRONMENTAL SCIENCE AND HUMAN RIGHTS** |
| Module III<br>**Fibonacci Numbers in nature**<br>The rabbit problem, Fibonacci | Module III<br>**Environmental Pollution**: Definition, Causes, effects and control measures of: - |

numbers, recursive definition, Lucas numbers, Different types of Fibonacci and Lucas numbers. Fibonacci numbers in nature: Fibonacci and the earth, Fibonacci and flowers, Fibonacci and sunflower, Fibonacci, pinecones, artichokes and pineapples, Fibonacci and bees, Fibonacci and subsets, Fibonacci and sewage treatment, Fibonacci and atoms, Fibonacci and reflections, Fibonacci, paraffins and cyclo paraffins, Fibonacci and music, Fibonacci and compositions with1's and 2's.

Module IV: Golden Ratio

The golden ratio, mean proportional, age ometric interpretation, ruler and compass construction, Euler construction, generation by Newton's method. The golden ratio revisited, the golden ratio and human body, golden

Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear hazards; Solid waste Management: Causes, effects and control measures of urban and industrial wastes.; Role of an individual in prevention of pollution, Pollution case studies; Disaster management: floods, earthquake, cyclone and landslides.

Social Issues and the Environment: Urban problems related to energy; Water conservation, rain water harvesting, watershed management; Resettlement and rehabilitation of people: its problems and concerns, Case studies; Environmental ethics: Issues and possible solutions; Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, Case studies; Consumerism and waste products; Environment Protection Act; Air (Prevention and Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act; Issues involved in enforcement of environmental legislation; Public awareness

Module IV

Introduction to Environment and Business - Introduction of ways in which business has and is responding to environmental and business issues, business and sustainable development; issues of corporate/business greening.

Green Entrepreneurship - What is green

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| ratio by origami, Differential equations, Gattei's discovery of golden ratio, centroids of circles | entrepreneurship, definition, meaning, scope, nature and characteristics. Green entrepreneurship in India. Difference between conventional and green entrepreneurship. |

| SEMESTER III<br>Skill Component | |
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| Existing Syllabus | Proposed Syllabus |
| Course code: FMG3CRP0120 | Course code: FMG3CRP0123 |
| Course Title: Yoga for Fitness I | Course Title: Fitness and Conditioning |
| Removed | After successful completion of this course, students will be able to<br>• Understand the weight training, resistance training, interval training exercises.<br>• Understand the speed, strength, endurance and flexibility training.<br>• Explain the body components<br>• Understand the Anthropometric measurement and gain knowledge about B.M.I<br>Weight Training Exercise, Resistance training, Resistance band exercises, Core training- Swiss ball, Bosu ball Exercises, Circuit training for strength, endurance, strength endurance improvement, & calorie burning, Interval training – strength, endurance, Flexibility training – static training, PNF stretching, Endurance training – continuous, repetition, fartlek method, Skill related Test: Flexibility, Strong foot, Endurance. |

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| | MEASUREMENT & EVALUATION<br>Anthropometric measurement<br>Health related physical fitness test:<br>Cardio Vascular Endurance: Beep test, run/walk test, step test.<br>Muscular strength & endurance: 1 RM, Pull Up, Push Up, Bent Knee Sit Up<br>Flexibility: Sit & Reach, Shoulder Flexibility.<br>Body Composition: WHR, BMI, Digital Fat monitor. Physiological test: Heart Rate, Respiratory Rate.<br>Skill related physical fitness test:<br>Speed: 30 m dash Flying test<br>Agility: Shuttle Run, SEMO Agility run<br>Balance: Stork Stand Test, Endurance Test, Strength Test<br>Reaction time: Hand Reaction Time, Foot Reaction Time<br>Power: Standing Broad Jump, Vertical jump, Medicine Ball Throw |

| SEMESTER IV<br>Skill Component | |
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| Existing Syllabus | Proposed Syllabus |
| Course code: FMG4CRP0120 | Course code: FMG4CRP0123 |
| Course Title: Yoga for Fitness I | Course Title: Yoga for Fitness |
| • Demonstrate knowledge of the value of advanced yogic asanas in daily life | Course Outcomes<br>After successful completion of this course, students will be able to<br>• Understand the value of yoga practice in |

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| • Identify the different methods and techniques for performing advanced asanas.<br>• Describe the advantages of shat-kriyas and identify the techniques of practicing it.<br>• Compare the effects of yogic asanas and shat- kriyas<br>• Demonstrate different cleansing asanas. | daily life.<br>• Demonstrate the knowledge to prescribe yoga practices for fitness.<br>• Identify the different asanas for various therapeutic purpose.<br>• Demonstrate knowledge of the value of advanced yogic asanas in daily life.<br>• Analyze the effect of asanas on various systems.<br>Practical-Asana<br>Tadasana, Vrikshasana, AdhoMukhasanasana, Trikonasana, Kursiasana, Naukasana, Bhujangasana, Balasana, Sukhasana, Surynamaskar, Halasana, Bhujagasana, Ardha-shalabhaasana.<br>Practical-Pranayama, Bandha, Mudra |

| SEMESTER V<br>Skill Component | |
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| Existing Syllabus | Proposed Syllabus |
| Course code: FMG5CRT0120 | Course code: FMG5CRT0123 |
| Course Title: Introduction to Physiotherapy and Injury Management | Course Title: Introduction to Physiotherapy and Injury Management |
| Course Outcomes<br>After successful completion of this course, students will be able to<br>• Acquire knowledge about principles and ethics of first aid.<br>• Demonstrate the different first aid techniques<br>• Identify the types of injuries and its | Course Outcomes<br>After successful completion of this course, students will be able to<br>Acquire knowledge about principles and ethics of physiotherapy<br>Identify the basic principles of physiotherapy and modalities<br>Experiment with different physiotherapy modalities like, hydrotherapy, |

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| related first aid<br><br>Module I<br><br>First Aid- definition, purpose-principle- and ethics-general procedure. First Aid Kit<br><br>Module II<br><br>Wounds- Types and its management. Fractures-Types and Management. First Aid for- Burns, Scalds, Animal bites, Snake bite, Poisoning, Chocking, electric shock, Heat stroke, Snow bite and drowning. CPR and RICE (Theory and practical)<br><br>Module III<br><br>First Aid for specific injuries: Eye, head, Neck, Abdomen, Organs, Blisters, Strain, Sprain, Contusion, Abrasion, Laceration and dislocation. Bandaging Techniques. Techniques for carrying injured persons.<br><br>Module V<br><br>Hydrotherapy - cold compress – ice - cold water, Hot water, vapor bath – Shrill Pool bath. Electrotherapy, Magnetotherapy, Infrared, Diathermy and Ultrasonic. | magnetotherapy, cryotherapy etc.,<br><br>Module I<br><br>Physiotherapy: Meaning, Definition and Concept, Guiding principles of physiotherapy, Need and importance of physiotherapy in the field of fitness management, History of physiotherapy - world and India, Responsibilities of a physiotherapist.<br><br>Module II<br><br>Introduction of Therapeutic modalities: Electrotherapy - Ultrasound, Electrical stimulation, Traction unit, Inferential unit, Diathermy, TENS, Wax bath.<br><br>Thermotherapy: Hot bags, Hot water fermentation, Hot water baths (immersion or whirlpool), Contoured thermos - cuffs, Commercial gel and chemical packs, Paraffin wax bath, Steam bath, Sauna bath.<br><br>Hydrotherapy: Cryotherapy, Whirlpool bath, Contrast bath, Vapocoolant sprays, Moist heat therapy, Fluidotherapy.<br><br>Module III<br><br>Therapeutic Exercises: Definition and scope of therapeutic exercises, Principles of therapeutic exercises, Effects and use of therapeutic exercises, Classification of therapeutic exercises.<br><br>Module IV<br><br>Free mobility exercises: Shoulder joint and Elbow joint, Wrist joint and Finger joint, Hip, Knee, Ankle and Foot joints, Trunk, Head |

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| | and Neck joints.<br>Module V<br>Preparation and safety measures for patient and equipment's, Therapeutic treatment for respiratory circulatory, Muscular and skeletal systems.<br>References<br>• Kumar, Pramod. (2020). *Sports Medicine, Physiotherapy and Rehabilitation*, New Delhi: Friends Publications.<br>• Pryor, Jenifer A. (2016). *Physiotherapy for Respiratory and Cardiac problems,* Elsevier Health Services.<br>• Porter, Stuart. (2013). *Tidy's Physiotherapy*, Elsevier Health Services.<br>• Norris, Christopher, N. (1993). *Managing Sports Injuries, A guide for students and Clinicians,* China: Elsevier.<br>• Downie, Patricia A. (1987). *Cash's text Book of Chest, Heart and vascular disorder for Physio therapy,* Elsevier Health Services. |

| SEMESTER V<br>Skill Component | |
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| Existing Syllabus | Proposed Syllabus |
| Course code: FMG5CRT0220 | Course code: FMG5CRT0223 |
| Course Title: Yoga for Wellness | Course Title: Yoga Therapy and Remedial Treatments |
| Course Outcomes<br>Identify the diet plan in ayurvedic and modern science. | Course Outcomes<br>After successful completion of this course, students will be able to |

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| Determine the effect of yoga and meditation for improving bodily structure and appearance– metabolic rate.<br><br>Module I<br><br>Ashtanga yoga of Patanjali<br><br>Module IV<br><br>Dhyana a great tranquilizer Yoganidra | Explain the role of yoga for maintaining health and wellness.<br><br>Summarize the physiological and psychological effects of asanas.<br><br>Identify the diet plan in ayurvedic and modern science.<br><br>Recall the yogic practices for mental health.<br><br>Determine the effect of yoga and meditation for improving bodily structure and appearance– metabolic rate.<br><br>Module I<br><br>Wellness and Wellbeing: Meaning and Definition of Wellness, Concept of wellness and wellbeing, Yogic concept of healthy living, Holistic approach of health and happiness, Yogic concept of wellness and Ashtanga yoga of Patanjali, Fundamental Principles of Yoga Therapy - Application of Yoga Therapy in Traditional Yoga - Bhagavad-Gita, Definitions of Yoga in Bhagavad-Gita and their relevance in Yoga therapy.<br><br>Module II<br><br>Asana: Physiology of exercise, Asana - Types and Categories; Musculo skeletal system and mechanisms involved; Effect of Yogic practices in setting up the internal environment of the body, Concept of Yoga and Health in Indian Traditional Systems of Medicine, Yogic Concept of Health, Meaning and definitions, Role of Yogic Positive |

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| | Attitudes for Healthy Living.<br><br>Module III<br><br>Effect of Asanas on ailments: Heart disease, diabetes, asthma, hypertension, digestive problems, back pain, neck pain, emotional stability, stress, fatigue, scoliosis, thyroid problems, arthritis, weakened immune system, Effect of yoga & mediation in stress relief, bodily structure & appearance, Metabolism, general characteristics, mental factors.<br><br>Module IV<br><br>Pranayama: Mechanism of respiratory system and gas exchange, Regulation of respiration, Psycho - physiological effect of Pranayama, changing of ratio of oxygen and carbonic carbon- dioxide in our body; enabling different groups of muscles in breathing.<br><br>Meditation: Different types of meditation its impacts on central nervous system and peripheral nervous system. Different types of meditation its impacts on cardiovascular system, respiratory system, nerve - muscle physiology, Meditation its impacts on relaxation of each and every system of body like Menstrual Disorder (menstrual cramp, dysmenorrheal, pre-menstrual syndrome).<br><br>Module V<br><br>Yoga and Allied Science: Basic principles of Ayurveda, Naturopathy, Therapeutic importance of Dinacharya and Ritucharya, Concept of Aahara, Vihara, Aachara and |

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| | Vichara. Yogic Concept of Aahara - Diet and Nutrition, Importance of Diet, Role of Yogic Diet in old age, concept of Ayurveda and modern science. Yoga as preventive and promotive health care. |

| SEMESTER VI<br>General Component | |
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| Existing Syllabus | Proposed Syllabus |
| Course code: FMG6CMT0120 | Course code: FMG6CMT0123 |
| Course Title: Principles of Management | Course Title: First Aid and Emergency Management |
| Shifted to Semester I without changing the content | 60 Hours 4 Credits<br>Course Outcomes<br>After successful completion of this course, students will be able to<br>Acquire knowledge about principles and ethics of first aid.<br>Administering basic life support skills including cardiopulmonary Resuscitation<br>Identify the types of injuries and its related first aid.<br>Be able to assess an emergency situation safely.<br>Module I<br>Introduction to First Aid: Meaning and Definition, Purpose, Principles and Ethics, Objectives of First Aid, ABC of First Aid, Contents of an ideal First Aid Kit.<br>Module II |

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| | First in different cases: First for Drowning, First Aid for Fire Injuries - First Aid for Severe Burns, First Aid for Mild Burns, First Aid for Injuries on the Play Field - Skin Injuries, Soft Tissue Injuries, Joint Injuries – Dislocation, Bone Injuries - Fractures.<br><br>Module III<br><br>Dressing and Bandages: Dressings - Sterile Wound Dressing, Sterile non - Adherent dressings, Improvised dressings, Bandages - Roller Bandages, Basic steps to successful use of a roller bandage, Applying Roller Bandages - lower arm or leg, elbow or knee, hand or foot, triangular Bandages, Sling - Arm Sling, Elevation Sling, Collar and Cuff Sling, Pad.<br><br>Module IV<br><br>Athletic Injuries, First Aid and Safety: Objectives, Different types of Sports Injuries - Soft Tissue Injury – Contusion, Abrasion, Laceration, Incision, Strain, Sprain, Bone Injury - Close Fracture and Open Fracture, Joint Injury – Dislocation, Treatment for Simple Sports Injuries, Prevention of Sports Injury, Safety Precautions.<br><br>Module V<br><br>Acting in an Emergency: The Human Body, Assessing the Victim, Cardiopulmonary Resuscitation (CPR) Automated External Defibrillators (AED), Airway Obstructions, Controlling Bleeding, Shock, Wounds and Soft Tissue Injuries, Burns Head and Spinal Injuries Chest, Abdominal and Pelvic Injuries Bone, Joint and Muscle Injuries, Extremity Injuries and Splinting, Sudden Illness, Poisoning, Substance |

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| | Misuse and Abuse, Bites and Stings, Cold and Heat Emergencies, Rescuing and Moving Victims. |

| SEMESTER VI<br>General Component | |
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| Existing Syllabus | Proposed Syllabus |
| Course code: FMG6CMT0320 | Course code: FMG6CMT0323 |
| Course Title: Operations and Management of Fitness Facilities | Course Title: Facility Management, Operations and Design |
| Course Outcomes<br>After successful completion of this course, students will be able to<br>Identify the types and techniques of resistance training<br>Plan and prepare the test protocol and resistance training program.<br>Analyze the muscular strength and muscular endurance program- upper body and lower body exercises.<br>Module I<br>General resistance training principles, components, fitness evaluation, primary goals, types of resistance training exercises, Guidelines to follow when choosing exercise Guidelines to follow when assigning volume,<br>Module II<br>Resistance Training, Exercise Techniques-Basic exercise technique guidelines, spotting resistance training | Course Outcomes<br>After successful completion of this course, students will be able to<br>To acquire knowledge infrastructure facilities and maintenance of facilities.<br>Facilitate fitness Centre guidelines and policies<br>Module I<br>Facility Design and planning: Fitness center lay out, Electrical lay out, Locker Room set-up and amenities, Group fitness studio - size, flooring, mirrors, AV, Storage space - lay out and size, Ventilation, Lighting, and flooring options, Multipurpose rooms - massage, Fitness testing and evaluation, Office space.<br>Module II<br>Maintenance of facilities: Multi gym, Weight training equipment, Indoor, Outdoor, Swimming pools, Electrical machines, Exercise bikes, Treadmill, Hydraulic machines, Criteria to be followed in the |

exercises-overhead exercise, barbell, dumbbell, spotting exercise

Module III

Protocol for testing, Repetition Maximum Testing, Resistance Training Status, Resistance Training Goal, Rest Periods, Guidelines to follow when assigning Rest Periods, Resistance Training Status.

Module IV (15 Hours)

Variations- Pyramid Training, within-the Week Variation, Progression, Rule to Increase the Training Load, Muscular Endurance Programme, Alternate Upper body & Lower body Exercises, Assigning Loads - Repetitions, Sets, Rest Periods, Hypertrophy Programme, Muscular Strength Programme, Assessing Load capabilities based on1RM

Module V

Spa Management, Swimming pool, Steam Bath, Sauna Bath, Jacuzzi operation

References

Earle, R. W. and T. R. Baechle. (2000). Resistance training and spotting techniques

Faigenbaum, A, and W.Westcott.2000. Strength and Power for young Athletes, chamaign, IL: Human Kinetics.

NSCA Certification Commission. 2001.

selection of equipment, Body wraps, Elastic straps, Vibrating machines.

Module III

Fitness center management and design: Smart design and development, Facility design lay out, Space allocation for cardio strength, Group exercise, Recreation and locker rooms, Equipment recommendations, Facility operations, policies and procedures, Facility/equipment cleanliness and maintenance, Spa Management, Steam Bath, Sauna Bath, Jacuzzi operation.

Module IV

Engaging programs and services: Membership recruitment, Enrolment and Retention, Individual fitness consultation and Supervision, Motivational incentive programs and special events, Team based activities, Provide new members program orientations, Facility marketing, sales and promotion.

Module V

Risk management best practices for fitness facilities: Identify the potential risks, Evaluate the severity of the potential risks, Develop strategies to mitigate the potential risks.

References

References

- Bates, Mike et.al (2019). *Health Fitness Management*, 3rd Edition
- Sanders, Mary (2018). *ACSM's Health/Fitness Facility Standards and*

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| Exercise Technique Cheklist Manuel. Lincoln, NE; NSCA Certification Commission. | *Guidelines,* 5th Edition.<br>• Howley, Edward, T. and Don, Franks, B. (1997). *Health Fitness Instructor's handbook.* 3rd Edition. |

| SEMESTER VI<br>Skill Component | |
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| Existing Syllabus | Proposed Syllabus |
| Course code: FMG6CRT0220 | Course code: FMG6CRT0223 |
| Course Title: Yoga for Remedial Treatments | Course Title: Fundamentals of Sports Medicine and Rehabiltation |
| Skill Component: FMG6CRT0220 Yoga for Remedial Treatments<br>Course Outcomes<br>After successful completion of this course, students will be able to<br>Demonstrate the knowledge about the principles of Ayurveda in yoga<br>Interpret the philosophical concepts and principles of naturopathy in yoga<br>Build a dietic plan in yoga therapy<br>Compare yoga with modern psychology<br>Determine the yogic therapeutic practices for various systems<br>Module I<br>Principles of Ayurveda in Yoga-Tridosha, concept of health according to Ayurveda, Dinacharya, Sadvritta, Ritucharya, elements of Snehana, Swedana, Vamana Virechana, | Skill Component: FMG6CRT0223 Fundamentals of Sports Medicine and Rehabilitation<br>Course Outcomes<br>After successful completion of this course, students will be able to<br>Concept, aims & scope of sports medicine<br>Illustrate the components of sports medicine program and medical terminology.<br>Identify the emergency first aid procedures and management of Injuries<br>Experiment with the different therapeutic exercises and its procedures.<br>Develop knowledge regarding causes, prevention and management of Injuries.<br>Module I<br>Introduction to Sports medicine: Meaning and Definition of Sports Medicine, History of Sports Medicine, Scope of Sports medicine in India and Abroad, Aims and Concept of |

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| Bastikriyain panchakarma<br><br>Module II<br><br>Principles of Naturopathy in Yoga - The evolution of the human body, philosophy of the body; mind, soul, life, spirit and spiritual body, Philosophy, history and fundamental principles of Naturopathy. Inflammation and its different stages, Natural rejuvenation.<br><br>Module III<br><br>Dietetics in Yoga Therapy - Classification according to triguna- Vegetarian Vs. non vegetarian Diet. Nutrition -Nutrients, proximate principles of diet - their importance. - Importance of proteins in biological system - Essential and non-essential amino acids - biological value. Lipids- triglycerides-essential fatty acids. Calorimetry.<br><br>Module IV<br><br>Yoga and Psychology - Study of - cognitive processes. Higher mental processes, feeling and emotion, mental abilities and personality. A comparative study of total personality according to Yoga and Modern Psychology<br><br>Module V<br><br>Yoga Therapy in Practice - A comprehensive study of the definition, patho physiology, Aetiology, clinical features, assessments and yoga therapy for ailments of the following | Sports Medicine.<br><br>Module II<br><br>Sports Injuries: Causes & Mechanism of Sports Injuries, Prevention of sports injuries, Common Acute and Overuse injuries, Heat stroke and Heat illness, Individual events, Team Events, Contact and Non - contact sports, Water sports specific injuries, Over Use Training in Sports.<br><br>Sporting emergencies & first aid of injuries: Cardio pulmonary Resuscitation, Shock management, Internal and External bleeding, Splinting, Stretcher use - Handling and transfer, Management of Cardiac arrest, Acute asthma, Epilepsy, Drowning, Burn, Medical management of Mass Participation. AIDS in sports people.<br><br>Module III<br><br>Non-Traumatic Conditions: Illness, Infections, Hypertension, Urine abnormalities, Exercise induced Asthma; Anaemia, Runner's high & exercise addiction. Age Specific Problems, Issues in the adolescents and children involved in sports, Exercise and Common Pulmonary Conditions, Exercises for special categories, Special problems of older athletes, Special concerns for handicapped athletes, Vitamins and exercise, Female Specific problems - Sports Amenorrhea, Injury to female reproductive tract, Menstrual Synchrony, Sex determination, Exercise and pregnancy, Eating disorders in athletes.<br><br>Module IV |

systems:- Nervous, Endocrine, Respiratory, Cardio - vascular, Digestive, Musculo - Skeletal, Reproductive systems and Neurosis, Pregnancy and Eye Problems.

References

The Principles and Practice of medicine Davidson

Anatomy and Physiology of Yogic Practices- M.MGhore, Kaivalyadhama, Lonavala, Pune. A Systematic course in the ancient tantric techniques of yoga and kriya – Bihar School of Yoga, Munger.

Yoga for different ailments-series published by SVYASA, Bangalore and Bihar Yoga Bharati.

Yoga for common ailments: Robin Monro, Nagarathna & Nagendra-Guia Publication, U.K.

Yogatherapy: by Swami Kuvalayanand, Kaivalayadhama, Lonavala.

Yogictherapy: Swami Shivananda, Umachal Yoga Ashram, Kamakhya, Assam.

Light on Pranayama - B.K.S. Iyengar

Promotion of positive Health- published by SVYASA, Bangalore

Doping in Sports: List of banned drugs: their effects and side effects, Guidelines of sample (urine and blood) collection for dope testing, Methods of Drug testing, Relevance of Therapeutic use exemption in doping, Latest trends in doping, Performance enhancing supplements in sports and international regulations, Ergogenic Aids.

Module V

Rehabilitation and Therapeutic Exercises: Define Rehabilitation, Goals and Objectives of Rehabilitation in Sports, Prehabiiltation, Modern concepts in rehabilitation, Definition, details of effects and uses of therapeutic exercises - Dynamic Exercises, Plyometric Exercises, Isokinetic Exercises, Manipulative Techniques, Kinetic chain exercises, Health club & fitness Concept, Use and misuse of equipment - Group therapy, Sauna bath, Prevention and rehabilitation of heart attack and diabetes, Basics of Cardiac Rehabilitation.

References

- Krogsgaard, Michael & Magnusson, Peter, et.al. (2008). *Textbook of Sports Medicine: Basic Science and Clinical Aspects of Sports Injury and Physical Activity,* Blackwell Science.
- Dr. P. K. Pandey. (2008). *Sports Medicine,* New Delhi: Khel Sahitya Kendra.
- NSCA Certification Commission (2001). *Exercise Technique. Checklist Manuel*

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| | Lincoln, NE; NSCA Certification Commission.<br>• Sherry, Eugene and Bokor, Des. (1997). *Sports Medicine, Problems and Practical Management,* UK: Greenwitch Medical Media.<br>• J. G. P Williams and P. N Sperryn. (1976). *Sports Medicine,* Great Britain: Butler & Tanner Ltd. |