SOLAPUR UNIVERSITY, SOLAPUR

SYLLABUS OF MASTER DEGREE

IN PHYSICAL EDUCATION

REGULAR COURSE

TWO YEARS

(FOUR SEMESTERS)

UNDER THE FACULTY OF

EDUCATION INTRODUCED

FROM THE ACADEMIC YEAR

2010-11

M.P.Ed. (Two Years)

ELIGIBILITY FOR ADMISSION TO THE M.P.ED. COURSE :

Any person who has passed any one of the following examinations of this university or any other statutory university recognized by this university will be eligible for admission to Master Degree in Physical Education (M.P.Ed. Two Years Regular) Four Semester

1) Bachelor of Physical Education (B.P.Ed.)
2) B.P.E. (Four Years Course)
3) B.Ed. (Physical Education)

The intake of student's capacity & admission procedure are as per the rules of NCTE approved by Govt. of Maharashtra and Solapur University.

DURATION OF COURSE :

Duration of course shall be of two years (Four Semester Examination).

STRUCTURE OF THE COURSE :

i) Semester – I

ii) Semester – II

iii) Semester – III

iv) Semester – IV

For M.P.Ed. – I[st] Year, Semester – I & Semester – II & for M.P.Ed. – II[nd] Year, Semester – III[rd] & Semester – IV[th]

M.P.Ed. – I[st] Year **Total 700 Marks**

Semester	External Assessment (University Examination)	Internal Assessment	Total Marks
I	Theory – 200 Marks External Practical Exam – 50 Marks	Theory and Practical-100 Marks	350 Marks
II	Theory – 200 Marks External Practical Exam – 50 Marks	Theory and Practical-100 Marks	350 Marks

M.P.Ed. – II[nd] Year **Total 700 Marks**

Semester	External Assessment (University Examination)	Internal Assessment	Total Marks
III	Theory – 200 Marks External Practical Exam – 50 Marks	Theory and Practical-100 Marks	350 Marks
IV	Theory – 200 Marks External Practical Exam – 50 Marks	Theory and Practical-100 Marks	350 Marks

EXAMINATION FEES :

Fee structure for each semester examination is as per the university rules and regulations.

The candidates admitted to the M.P.Ed. Course shall be eligible for admission to the examination of M.P.Ed. Semester – I, II, III & IV of the course and has completed the necessary practical lesson etc. and submitted an application in the prescribed form along with prescribed examination fees and Certificate of the Principal.

The candidates are allowed to answer the question in English / Marathi / Hindi.

M.P.Ed. Part – I

Semester – I :

There are four papers, each paper carry 50 marks.

Paper No. I :

Test, Measurement & Evaluation in Physical Education.

Paper No. II : Statistics.

Paper No. III :

Management & Supervision of Physical Education, Sports.

Paper No. IV :

Recreation.

M.P.Ed. Part – I **Total – 350 Marks**

Semester – I : Theory University Exam 200 marks & Practical 150 marks.

1) Internal Practical : 100 Marks.

2) External Practical : 050 Marks.

Theory Paper – 200 Marks.

Paper – I :

Test, Measurement & Evaluation in Physical Education - 50 Marks

Paper – II :

Statistics – 50 Marks.

Paper No. III :

Management and Supervision of Physical Education & Sports.

Paper – IV :

Recreation.

Practical :

Semester – I : 150 Marks.

i.e. Internal Assessment (Theory & Practical) 100 Marks & External Practical 50 marks.

Semester – I : Internal Practicals are as follows :

a) One Tutorial each paper four tutorials : 20 Marks.

b) Skill Test in Athletics (04 Events) : 40 Marks.

Sprint : 10 Marks, High Jump : 10 Marks,

Shot Put : 10 Marks, Hurdles : 10 Marks.

c) Any two events coaching lesson on Athletics as mention above events : 20 Marks.

d) Journal on Athletics : 20 Marks.

Annual Practical Examination of Semester Ist :

Any one coaching lesson on Athletics (Mention in Semester – I) : 50 Marks.

M.P.Ed. – Ist

Semester – II

Theory University Exam : 200 Marks and Practical 150 Marks.

1) Internal Assessment (Theory & Practical) – 100 Marks.
2) University Practical Examination – 50 Marks.

Theory Papers : 200 Marks.

Paper V : Kinesiology – 50 marks.

Paper VI : Biomechanics – 50 marks.

Paper VII :

Scientific Principles of Training in sports and games – 50 Marks.

Paper VIII :

Science of coaching in sports and games – 50 Marks.

Practical :

Internal Assessment (Theory & Practical) – 100 marks are as follows:

a) One Tutorial each paper (04 tutorials) – 20 marks.

b) Three Coaching Lesson on Specialization – 30 marks.

c) Skills and Officiating in Specialization – 30 marks.

d) Journal on Specialization – 20 marks.

University Practical Exam :

One lesion on specialization game / sport based on condantion officiating & coaching (45 minutes) – 50 marks.

List of the Games and Sports for Specialization :

(Any one game or sports should be selected)

1) Badminton
2) Basket Ball
3) Cricket
4) Foot Ball
5) Gymnastics
6) Hockey
7) Kabaddi
8) Kho – Kho
9) Tennis
10) Swimming
11) Table Tennis
12) Volley Ball
13) Hand Ball

14) Wrestling

15) Soft Ball

Note : A game / sport, which is taken in M.P.Ed. Part Ist (Semester I and Semester II) should not be repeated in M.P.Ed. Part IInd (Semester III and Semester IV)

The detail syllabus of the above games / sports will be as follows:

I) History and evaluation of sport

a) In India

b) In Asia

c) In World

II) Organization of the game

a) At National level

b) At International level

III) Organization and Officiating

a) Rules and their Interpretation

b) Equipment – Specification

c) Organization of Tournaments

IV) Techniques of the sport, fundamental skills and their application.

V) Tactics and Strategy

VI) Training Procedure

VII) Planning Coaching Schedules

VIII) Test and Measurements

Conduct of University Practical Examination :

A candidate who completes the internal assessment work satisfactorily and remains present during the course for 75% of the total periods of regular course will be allowed to appear for the University external examination –

The university shall appoint equal number of internal & external examiners.

For smooth conduct of university practical examination the college should appoint one organizer & two peons and they should be paid local conveyance allowance & Remuneration by the university.

For theory examination an overall chairman must be appointed. For practical examination an overall chairman and senior examiner must be appointed.

Standard of Passing :

1) To pass in any one of the semester of M.P.Ed. Examination a candidate shall have to obtain at least 40% of marks in each theory paper & 50% in practical (Internal as well as External)

i) To pass M.P.Ed. in IInd Class : 50% & above but below 55% in aggregate.

ii) To pass Higher Second Class : 55% and above but below 60% in aggregate.

iii) To pass First Class : 60% and above but below 70% in aggregate.

iv) To pass Distinction : 70% and above in aggregate.

1.1 If the student is fail in semester – I, one or two theory papers and fail in university practical exam he / she is allow to take admission in semester – II.

i.e. in one or two theory papers & fail in university practical exam, he / she is allow to take admission in semester – II. But he should pass the internal works.

1.2 If a student fail in semester – I, theory or practical exam, he / she will not be given admission to semester – III (i.e. who have passed semester – I theory & practical examination will be given admission to semester – III)

1.3 If a student who is fails in semester – II, theory & practical (one or two) & practical will be given admission in semester – III. He / She need not appear for Internal assessment (theory & practical) of semester – II.

1.4 If a student who is fails in semester – II, he / she will not be given admission to the semester – IV (i.e. who have passed semester – II

theory (one or two) & practical examination will be given admission to semester – IV). He / She need not appear for Internal assessment of semester – II.

1.5 If a student who is fail semester – III, in theory (one or two) & practical, he / she is eligible to take admission to the semester – IV and he/ she can give examination in University Theory & Practical together of semester-III & IV.

M.P.Ed. Part - I

SEMESTER – I

Paper – I

TEST, MEASUREMENT AND EVALUATION IN PHYSICAL

TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION :

1) Meaning of Test, Measurements and Evaluation, Need and importance of Test and Measurement in Physical Education.
2) Criteria for selecting tests.

   Validity, Reliability, Objectivity, Administrative feasibility, Economy, norms simplicity.
3) Test Classification:

   Standardized and Teacher made Test-objective and subjective test, construction of knowledge (written) and skill tests, cognitive.
4) Organizing & Administrating the testing programme.

   Defining the problem selecting the test for use, Advance preparation, administering the test, scoring the test. Presenting the results and interpreting the results.
5) Physical Fitness Test

   a) Strength Test

      i) Kraus – Wrber test

ii) Sargent – Test

iii) Rogers strength index

b) Motor Fitness Test

i) J.C.R. Test

ii) AAHPERD Youth Fitness Test

iii) N.P.F.P.

c) Cardio Vascular Test

i) Harvard Step Test

ii) Tuttle pulse ratio Test

iii) Coopers 12 minutes run and walk test

iv) Blaks Treadm Test

6) General Motor ability tests

i) Barrow motor ability test

ii) Lowo-Brace Test

iii) Cozens test for general athletic ability

7) Sports Skill Testing

i) Lokhart and Mepherson Badminton Test

ii) Russell Lounge Volley Ball Test

iii) Johnson Basket Ball ability Test

iv) Dyer Tennis Test

v) McDonnell Soccer Test

vi) Goal shooting test in Hockey

vii) Skill Test in Hand Ball

viii) Skill Test in Wrestling

ix) Skill Test in Kabaddi & Kho-Kho.

Reference:

1) H. Clarke – Application of measurement in Physical Education.
2) Donald Mathew – Measurement in Physical Education.
3) Harold Barrow – A Practical Approach to measurement in Physical Education.
4) Johnson & Nelson – Test, Measurement & Evaluation.
5) Garrett – General Psychology.
6) डॉ. प्रा. व्यंकटेश वांगवाड व प्राचार्य शंकर तिवाडी - शारीरिक शिक्षण मापन व मुल्यमापन - अंबा प्रकाशन, कोल्हापूर.
7) Prof. Dr. Madhuri T. Waghchoure – Measurement & Evaluation in Physical Education.
8) Prof. Dr. Pradeep Deshmukh & Prof. Pravin Shiledar – Measurement & Evaluation in Physical Education.

Paper – II

STATISTICS :

1) Introduction :

Meaning and importance of statistics in Physical Education.

2) Frequency Distribution :

i) Raw Scores

ii) Arranging raw scores into simple frequency and grouped frequency.

iii) Mid point.

iv) Discrete data and continuous data

3) Graphical representation of frequency distribution

i) The Histogram

ii) The frequency polygon

iii) Commutative frequency curve

4) Diagrammatic representative

Rules for drawing diagrams, simple bar diagram, split bar, bilateral bar, and circle diagram.

5) Measures of Central Tendency – The Mean, The median, The mode.

6) Percentile – Meaning and Importance.

Percentile, Percentile Rank.

7) Measures of variability

The quartile deviation, mean deviation. The standard deviation, the range and the probable error.

8) Standard and scale scores.

T Score, Z Score, T Scale, Sigma Scale, Hull Scale, Z Scale, 'T' Ratio, F – Ratio, Chi Square, Level of Significance.

9) Correlation

Meaning the scatter Diagram Rank difference, Correlation, Coefficient of Correlation.

10) Normal Curve

Meaning and plotting of normal curve.

Reference:

1) H. Clarke – Application of measurement in Physical Education.
2) Donald Mathew – Measurement in Physical Education.
3) Harold Barrow – A Practical Approach to measurement in Physical Education.
4) Johnson & Nelson – Test, Measurement & Evaluation.
5) Garrett – General Psychology.
6) डॉ. प्रा. व्यंकटेश वांगवाड व प्राचार्य शंकर तिवाडी - शारीरिक शिक्षण मापन व मुल्यमापन - अंबा प्रकाशन, कोल्हापूर.
7) Prof. Dr. Madhuri T. Waghchoure – Measurement & Evaluation in Physical Education.
8) Prof. Dr. Pradeep Deshmukh & Prof. Pravin Shiledar – Measurement & Evaluation in Physical Education.

PAPER - III

Management & Supervision of Physical Education, Sports

Paper – III :

Management & Supervision & Physical Education, Sports.

Unit – I :

a) Meaning of management of physical education and sports.

b) Objective of management.

c) Need & scope of management.

Unit – II :

a) Meaning need & importance of supervision in physical education.

b) Concept of inspection and supervision.

c) Objective and essential feature of good supervision.

d) Functions of the supervision.

e) Methods of supervision – individual & group conferences bulletins and demonstration.

Unit – III :

a) Qualification and qualities of a good administrator.

b) Responsibilities and duties of good administrator.

c) Training of administrator – Liberal Education, Group Dynamics and subject specialization.

Unit – IV :

a) Management of sports in college.

b) Management of sports universities, inter – university, state and national level, Indian and international Olympic. Management of physical education programme.

Unit – V :

a) Leadership in physical education.

b) Responsibilities for leadership.

c) Need of trained leader, pupil leader in physical education & sports.

Unit – VI :

a) Office management – Need, set up, care and sup keep, work efficiency.

b) Code of conduct records and registers, tiling reporting and correspondence.

Unit – VII :

a) Facilities & equipment required to run physical education programme – play ground, gymnasium, swimming pool and stadium.

b) Equipment – Need, types, purchase and up keep improvision of equipment.

Unit – VIII : Public Relation

a) Definition and Need of public relation in physical education.

b) Principles of public relationship in physical education.

c) Techniques of media of relation with public parent – pupils and other agencies.

Reference:

1) Bucher C. A. – “Administration of Physical Education and Athletic progress education.
2) Thomes J. P. – Organization of Physical Education, Chandro days press, Madras.
3) Joseph P. M. – Organisation of Physical Education old students Ab Bombay.
4) Votmer & Eliner The Organisation and Administration of Physical Education Programmes Stlouis. The C. V. Mosley Co, 1963.
5) William J. F. and Others : The Administration of health and Physical Education Philadelphia, WB Saunders Co.
6) डॉ. वि. कृ. कानडे - शारीरिक शिक्षणाचे व्यवस्थापन आणि प्रशासन आरती प्रकाशन - डोंबिवली.
7) पी.के. अरोरा - शारीरिक शिक्षामे संघटन, संचालन एवम मनोरंजन प्रकाश ब्रदर्स - लुधियाना.
8) शंकर तिवारी - शारीरिक शिक्षण संघटन व प्रशासन व पर्यवेक्षन - अंबा प्रकाशन, कोल्हापूर.
9) Mull, R. and Bayless, K : Recreational Sports Management – Champaign : Human Kinetic.
10) Russell, R : Leadership in Recreation : McGraw Hill.

11) Smith, R and Austin, D : Inclusive and special recreation : Opportunities for persons with disabilities Champaign : Human Kinetics.

Paper – IV :

Recreation.

Unit – I :

a) Concept and meaning of recreation.

b) Need and importance of recreation for the life.

c) Principles and theories of recreation.

d) Role of recreation on human development.

Unit – II :

a) Agencies providing recreation – Municipal public recreation, voluntary youth serving agencies, employees. Recreation, commercial recreation.

Unit – III : Recreational & Social Institution Community

a) Family School.

b) Religious Organization.

c) Schemes of organization – state, district, rural areas, educational institutions, industries & factories.

Unit – IV :

a) Recreational sports programs and administration.

b) Program for different category – special group, sex, age, handicapped, senior citizen, etc.

Unit – V : Types of Recreational Activities

a) Indoor and outdoor games, hobbies, music, sports, dramas, dancing camping, picnic, acts & crafts, nature study, walking, gardening, painting, reading and story tailing.

Unit – VI :

a) Program, planning and finance for camping.

b) Selection of camp site.

c) Organization of camps.

d) Leadership programmes.

e) Recreational facilities and area design.

Unit – VII :

a) Current issues in recreation.

b) Recent research and management development in recreation.

c) Latest trends in recreation.

d) Latest trends in time management.

Reference:

1) Bucher C. A. – “Administration of Physical Education and Athletic progress education.

2) Thomes J. P. – Organization of Physical Education, Chandro days press, Madras.

3) Joseph P. M. – Organisation of Physical Education old students Ab Bombay.

4) Votmer & Eliner The Organisation and Administration of Physical Education Programmes Stlouis. The C. V. Mosley Co, 1963.

5) William J. F. and Others : The Administration of health and Physical Education Philadelphia, WB Saunders Co.

6) डॉ. वि. कृ. कानडे - शारीरिक शिक्षणाचे व्यवस्थापन आणिा प्रशासन आरती प्रकाशन - डोंबिवली.

7) पी.के. अरोरा - शारीरिक शिक्षामे संघटन, संचालन एवम मनोरंजन प्रकाश ब्रदर्स - लुधियाना.

8) शंकर तिवारी - शारीरिक शिक्षण संघटन व प्रशासन व पर्यवेक्षन - अंबा प्रकाशन, कोल्हापूर.

9) Mull, R. and Bayless, K : Recreational Sports Management – Champaign : Human Kinetic.

10) Russell, R : Leadership in Recreation : McGraw Hill.

11) Smith, R and Austin, D : Inclusive and special recreation : Opportunities for persons with disabilities Champaign : Human Kinetics.

PAPER - V

SEMESTER – II

Kinesiology

Paper – V :

Kinesiology

Unit – I : Introduction to Kinesiology.

a) Meaning & Definition of Kinesiology.

b) Nature, scope, brief history of Kinesiology.

c) Aims and objective of Kinesiology.

d) Importance of Kinesiology in the field of physical education & sports.

Unit – II : Study of Muscle Action

a) Trunk : Sternocleldo mastold – Levator scapulae – Splenius capitis and cervicis – Erector spinae – Rectus abdominis – External oblique muscle – Internal oblique muscle transverse abdominis – quadratus lumborum.

b) Shoulder and shoulder girdle : Trapezius – Rhombolds major and minor – serratus anterior – Pectorals minor – Deltoid (Anterior, middle, posterior) – supraspinatus – Pectorails major – Latissimus

Dorsi – Teres major – Teres minor and Infraspinatus – subscapularis – Biceps brachial.

c) Elbow : Biceps brachil – Brachio radials Brachialis – Pronator teres – Triceps brachil supinator – pranator quadrates.

d) Wrist : Flexor carpiradialls – Flexor carpi ulnarls – palmaris long us – Extensor carpl radials longus – Extensor carpiradialls brevls – Extensor carplulnaris.

e) Hip : Psoas major and minor – Iliacus – Pectineus – sartorius – tensor fascla lata – Reetus femoris – gluteus maximus – gluteus minimus – gluteus medius semimembranosus – semitendinosus – Biceps femoris – six deep outward rotators – Gracilis – Adductor magnus – adductor longus – adductor brevis.

f) Knee – Rectus femoris – Vastus medialis – Vastus intermediarlis – Vastus lateralis – semimembranosus – semitendinosus – Biceps femoris – Gastrocnemius, popliteus.

g) Ankle : Ti bialls anterior – Extensor digitorum long us, Extensor hallucis long us – peroneus tertius – Gastrocnemius – Tibialls posterior – Flexor digitorum longus – Flexor hallucls longus – Peroneus longus – Peroneus brevis – soleus.

Unit – III :

a) Structural classification of joint.

b) Fundamental movements around joints.

c) Important muscles involved in the movement of various joints, Shoulder joint, elbow joint, wrist joint, knee joint, hip joint, ankle (foot) joint.

Unit – IV :

a) Kinesiology of Posture.

b) Meaning of Posture.

c) Good posture.

d) Postural deformities.

e) Causes of postural deformities.

f) Prevention and remedial measure.

Unit – V :

a) Types of muscular contractions – concentric, Eccentric static, Red and White muscle. The stretch reflexes and its fundamental significance. The extends or reflex or and its practical applications. The balance reflexes Reciprocal Innervation and inhibition and its effects on controlled muscular action, essential for true muscular

movements – warming up viscosity as muscle resistance Fatigue and performance.

Unit – VI :

a) Efficient movements and prerequisites physical, mental & emotional prerequisites.

Unit – VII : Application of Kinesiology.

a) Technique of analysis & evaluation of Human motion in sports activities.
b) The selection & evaluation of exercises for conditioning & development purposes.

Paper – VI

Biomechanics

Unit – I : Introduction to Biomechanics.

a) Meaning of the term biomechanics.
b) Brief history of biomechanics.
c) Need & importance of biomechanic in physical education & sports.

Unit – II : Equilibrium

a) Centre of Gravity

b) Types of equilibrium

c) Principles of equilibrium

d) Application of the principles of equilibrium in sports & games.

Unit – III : Motion

a) Definition and meaning of motion.

b) Types of motion – linear, rotatory and curvilinex.

c) Newton's laws of motion.

d) Application of Newton's laws of motion in sports & games.

Unit – IV : Projectiles

a) Definition & meaning of projectiles.

b) Path of projectile, vertical and horizontal displacement, time & angle of projection.

c) Application of principles of projectile to jumping of throwing events.

Unit – V : Friction

a) Definition & Meaning of friction.

b) Application of friction in sports & games.

Unit – VI : Force

a) Definition & meaning of force.

b) Centripetal and centrifugal force and their application in sports & games.

Unit – VII : Levers

a) Definitions & meanings of levers.

b) Types of levers.

c) Application of levers in sports & games.

Unit – VIII : Work, Energy & Power

a) Definition of work, energy & power.

b) Kinetic energy & potential energy.

c) Application of work, energy & power in sports & games.

Unit – IX :

a) Need & Scope of mechanical analysis of movement in athletics & sports.

b) Mechanical principles involved in the following sports & games :

c) Badminton, Tennis, Basket Ball, Volley Ball, Hand Ball, Kabaddi, Kho-kho, Cricket, Hockey, Soft Ball, Swimming, Gymnastics & Track & field. Mechanical analysis of a sports technique.

Unit – X :

a) Kinathropornetry – A brief account meaning, scope & development of Kinanthroplogy. Selection of sportsman.

Reference:

1) Cooper & Gilassow – Kinesiology.
2) K. Wells – Kinesiology.
3) K. Wells & Luttgen – Kinesiology.
4) Rash & Burke – Kinesiology and applied anatomy.
5) Jensen & Schultz – Kinesiology and applied anatomy.
6) Dyson – Mechanics of athletics.
7) Hay – Biomechanics of sports techniques.
8) Bunn – Scientific Principles of coaching.
9) H. S. Sodhi and others – Grigins of Kinanthropimetry.
10) Roblison, Hirchi and others – Modern Techniques of Track and Field.
11) Kreighbaum & Barthels – Biomechanics.
12) Colson & Collison – Progressive Exercise theraphy.
13) H. S. Sodhi & L. S. Sidhu – Physique and selection of sports man.
14) H. S. Sodhi & others – Brigins of Kinanthopometry.

PAPER - IV

SEMESTER – II

Scientific Principles of Training

in Games and Sports

Paper – VII :

Unit – I : Sports Training.

a) Definition & meaning of training.

b) Need and importance of sports training.

c) Principles of sports training.

Unit – II : Basic Methods of Training.

a) Weight training.

b) Circuit training.

c) Interval training.

d) Farrtlek training.

Unit – III : Factors involved in training & competition.

a) Physiological.

b) Psychological.

c) Sociological.

Unit – IV : Training Load of Recovery.

a) Principles of training load.

b) Major components of training load.

i.e. intensity, density, duration, volume & frequency

c) Load & adaption.

d) Over load – symptoms & causes.

e) Means of recovery & importance of recovery.

Unit – V : Sports Performance.

a) Definition & meaning of sports performance.

b) Process of sports performance.

c) Application of knowledge of sports performance.

Unit – VI : Method of Development for Motor Components

a) Strength : Definition

i) Major form of strength, types of strength.

ii) Factors determining strength.

iii) Strength training – means & methods.

b) Speed – Definition

i) Major form of speed.

ii) Speed training means & methods.

c) Endurance –

i) Definition.

ii) Importance of Indurance – sports & health.

iii) Methods for the development of endurance.

d) Flexibility –

i) Importance of flexibility

ii) Types of flexibility.

iii) Methods to develop flexibility.

e) Co-ordinative abilities –

i) Importance of co-ordinative ability.

ii) Methods of training for the development of co-ordinate abilities.

Reference:

1) Broer Marion R – Efficiency of Hunak Movement London; WB Saunder Co. 1966, Dollar 7.50.
2) Bunn, John W. Scientific Principles of Coaching Englewood Chiffs, N.J. : Prentice Hall Ins. 1960.
3) Dyson, Geoffrey H.G. : The Mechanics of Athletics London : University of London, Press Ltd. 1963 Sh. 35.
4) Lawther, J.D. Psychology of Coaching.
5) Bunn J.W. The Basketball Coach guide to success.
6) Jensen, Hirch, Robinson, Schultz – Modern techniques of Track and field.
7) Hay – Biomechanies of Sports techniques.
8) Prof. Dr. P. Chinnappa Reddy – Physics of Sports.
9) Mr. P. Chinnappa Reddy – Biomechanies in Sports.
10) प्रा. व्यंकटेश वागवाड - कोचिंग ॲण्ड ऑफसिएटिंग - क्रीडा तंत्र, पुणे.
11) डॉ. पी. डी. शर्मा - पंच कार्य एवम प्रशिक्षण.
12) Hardayal Singh – Science of Sports training.

Paper – VIII

Science of Coaching in Sports & Games

Unit – I : Sports Coaching.

a) Definition & meaning of sports coaching.

b) Need and importance of sports coaching.

c) Principles of coaching.

Unit – II :

a) Philosophy of Coaching.

b) The nature of coaching profession.

c) Prerequisites, duties, functions and qualities of coach.

Unit – III :

Scouting for different games & sports.

Unit – IV : Coaching & Training of Techniques, Tactics & Strategy –

a) Technique.

i) Meaning & Definition of Technique.

ii) Methods of Technique training in sports.

b) Tactics

i) Meaning & definition of tactics.

ii) Methods of development of tactics training.

Unit – V : Training Plans & Periodization –

a) Principles of planning.

b) Types of training and coaching plan.

i) Training conception, ii) Year plan, iii) Meso – Cycle plane,

iv) Micro – cycle plan.

c) Long Term and shot term plan.

d) Long Term training process.

e) Periodization of annual training programme.

(Off season, Early season, Mid season, Competitive season, Recovery season.)

Unit – VI :

Form, Economy of motion, timing, mechanics & grace.

Unit – VII :

Physical principles related sports skills : Meaning and application force, centrifugal and centripetal force, Motions, Newton's laws of motion, kinetic and potential energy, gravitational force, projectiles, friction.

Elementary mathematical problems to make the concepts clear involving the following formulate and operations: F = ma.

Relationship between velocity, distance, time and acceleration

S = ut + 2at 2v=at, v2..u2…=2 as

Resolution and combinations of vector quantities like force and velocity. Problems in projectiles, calculating distances covered and time taken in long jump, high jump, diving and throws.

P x PA = R x RA

M = mv ; e =

$M_1 u_1$ = m2u2 = $m_1 c_1$ + m2v2

For elastic bodies: $m_1 u_1$ + m2u2 = $m_1 v_1$ + m2v2

$$V2 = \frac{(m2 - em)\, u2 = (1+e)\, m_1 u_1}{m1 + m2}$$

for imperfect elastic bodies.

Moment of force F x D. Turing moments as starting gymnastic events.

F = mv2/r : ten = v2/gr

Relationship of angular motion to linear motion.

V1 = VrXr

W = Fd, P = w/t FV

PE = mzh, KE – Mv2

Reference:

1) Broer Marion R – Efficiency of Hunak Movement London; WB Saunder Co. 1966, Dollar 7.50.
2) Bunn, John W. Scientific Principles of Coaching Englewood Chiffs, N.J. : Prentice Hall Ins. 1960.
3) Dyson, Geoffrey H.G. : The Mechanics of Athletics London : University of London, Press Ltd. 1963 Sh. 35.
4) Lawther, J.D. Psychology of Coaching.
5) Bunn J.W. The Basketball Coach guide to success.
6) Jensen, Hirch, Robinson, Schultz – Modern techniques of Track and field.
7) Hay – Biomechanies of Sports techniques.
8) Prof. Dr. P. Chinnappa Reddy – Physics of Sports.
9) Mr. P. Chinnappa Reddy – Biomechanies in Sports.
10) प्रा. व्यंकटेश वागवाड - कोचिंग ॲण्ड ऑफसिएटिंग - क्रीडा तंत्र, पुणे.
11) डॉ. पी. डी. शर्मा - पंच कार्य एवम प्रशिक्षण.
12) Hardayal Singh – Science of Sports training.

1. Structure of the courses :-

A) Each paper of every subject for Arts, Social Sciences & Commerce Faculty shall be of 50 marks as resolved by the respective faculties and Academic Council.
B) For Science Faculty subjects each paper shall be of 100 marks and practical for every subject shall be of 50 Marks as resolved in the faculty and Academic Council.
C) For B. Pharmacy also the paper shall be of 50 marks for University examination. Internal marks will be given in the form of grades.
D) For courses which were in semester pattern will have their original distribution already of marks for each paper.
B) For the faculties of Education, Law, Engineering the course structure shall be as per the resolutions of the respective faculties and Academic Council.

2. Nature of question paper:
A) Nature of questions.

"20% Marks - objectives question" **(One mark each and multiple choice questions)**
"40% Marks - Short notes / Short answer type questions / Short Mathematical type questions/ Problems. **(2 to 4 Marks each)**
"40% Marks - Descriptive type questions / Long Mathematical type questions / Problems. **(5 to 10 Marks each)**

B) Objective type question will be of multiple choice (MCQ) with four alternatives. This answer book will be collected in first 15 minutes for 10 marks and in first 20 minutes for 20 marks. Each objective question will carry one mark **each.**
C) Questions on any topic may be set in any type of question. All questions should be set in such a way that there should be permutation and combination of questions on all topics from the syllabus. As far as possible it should cover entire syllabus.
D) There will be only five questions in the question paper. All questions will be compulsory. There will be internal option **(25%)** and not overall option. **for questions 2 to 5.**
3. Practical Examination for B. Sc. I. will be conducted at the end of second semester.
4. Examination fees for semester Examination will be decided in the Board of Examinations.

The structures of all courses in all Faculties were approved and placed before the Academic Council. After considered deliberations and discussion it was decided not to convene a meeting of the Academic Council for the same matter as there is no deviation from any decision taken by Faculties and Academic Council. Nature of Question Paper approved by Hon. Vice Chancellor on behalf of the Academic Council.