



SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE

(An Autonomous Institution)

(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
(Accredited by NBA-AICTE, New Delhi, Accredited by NAAC with "A" Grade)
Madagadipet, Puducherry - 605 107



COLLEGE OF PHYSIOTHERAPY

Minutes of 3rd BoS Meeting

Bachelor of Physiotherapy (BPT) Programme

Venue : Conference Hall,

Sri Manakula Vinayagar Engineering College.

Date & Time : 14th February 2023 at 10.30 a.m.



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COLLEGE OF PHYSIOTHERAPY

Vision:

To create a best possible environment to prepare physiotherapist who shall lead to serve and heal in a variety of health care and social setting to provide the best quality of life to an individual.

Mission:

- i. To establish outcome-based learning environment that includes values-based system.
- ii. To develop a system that periodically evaluates and guides the initiatives taken by the institute and encourages improvement upon best practices.
- iii. To stimulate the academic environment for promotion of quality of teaching/learning and research in the institute.

R. Chandrasekaran

A.A. Anurag



COLLEGE OF PHYSIOTHERAPY

Minutes of 3rd BoS meeting

The 3rd Board of studies meeting for College of Physiotherapy was held on 14th February 2023 at 10.30 a.m. in the Conference Hall, Sri Manakula Vinayagar Engineering College.

The following members were present in the BoS meeting:

Sl. No	Name of the member with designation & official address	Members as per UGC norms
1.	Prof. Dr. R. Chidambaram M.P.T. Dean, College of Physiotherapy, Sri Manakula Vinayagar Engineering College, Madagadipet, Puducherry – 605107. Email: deanphysio@smvec.ac.in	Chairman
2.	Prof. Dr. Balu M.P.T. Professor, School of Physiotherapy, Arupadaiveedu Medical College, Kirumambakkam, Puducherry – 607403. Email: balukhanphysio007@gmail.com	Subject expert (University Nominee)
3.	Prof. Dr. A. Dinakaran M.P.T. Principal, Adhiparasakthi College of Physiotherapy, Melmaruvathur – 603319. Email: apcopt1994@gmail.com	Subject expert (Academic Council Nominee)
4.	Prof. KSI. Dr. Murali Sankar M.P.T. Director, School of Physiotherapy, Arupadaiveedu Medical College, Kirumambakkam, Puducherry – 607403. Email: director.sptpdy@vmu.edu.in	Subject expert (Academic Council Nominee)

5.	Dr. S. D. Lakshmi Vasam B.P.T. Chief Physiotherapist, Sri Kumaran Physiotherapy Clinic, Villupuram. Email: lakmivasan@live.in	Representative from industry
6.	Dr. K. Ezhilan M.P.T. Chief Physiotherapist, Sri Manakula Vinayagar Medical College & Hospital, Kalitheerthalkuppam, Puducherry – 605107. Email: ezhilan.mpt@gmail.com	Member
7.	Dr. M. Nakkiran M.P.T. Assistant Professor, College of Physiotherapy, Sri Manakular Vinayagar Engineering College, Madagadipet, Puducherry- 605 107. Email: nakkiran.physio@smvec.ac.in	Member
8.	Dr. S. Anbumalar M.E., Ph.D. Dean Academics(circuit), College of Physiotherapy, Sri Manakular Vinayagar Engineering College, Madagadipet, Puducherry- 605 107. Email: deanacademic@smvec.ac.in	Special Invitee
9.	Dr. A. A. Arivalagar M.Tech.,Ph.D. Dean Academics(core), College of Physiotherapy, Sri Manakula Vinayagar Engineering College, Madagadipet, Puducherry -605107. Email:deanacademic1@smvec.ac.in	Special Invitee
10.	Dr. K. Manikandan M.S.(ortho.) Associate Professor, Department of Orthopaedics, Sri Manakula Vinayagar Engineering College & Hospital, Kalitheerthalkuppam, Puducherry – 605107. Email: manikandan7008@gmail.com	Subject expert (Special Invitee)

Agenda of the meeting

1.

Item No: BoS/2023/BPT/ 3.1

- To discuss and confirm the minutes of the 2nd BoS meeting, which was held on 14 - 05 - 22.

2.

Item No: BoS/2023/BPT/ 3.2

- To discuss and confirm the V and VI semester syllabi for the Bachelor of Physiotherapy programme under College of Physiotherapy, SMVEC Autonomous regulations 2021.

3.

Item No: BoS/2023/BPT/ 3.3

- To discuss the 2021–26 batch, II end semester examination results for BPT programme.

4.

Item No: BoS/2023/BPT/ 3.4

- To discuss and confirm the panel of external examiners to the end semester examinations for the academic year 2023-24.

5.

Item No: BoS/2023/BPT/ 3.5

- To discuss and confirm the question paper setter to the end semester examinations for the academic year 2023-24.

6.

Item No: BoS/2023/BPT/ 3.6

- To discuss and confirm the introduction of re-evaluation scheme in the BPT regulations R-2021 with effect from May/June 2023 end semester examination onwards.

7.

Item No: BoS/2023/BPT/ 3.7

- Any other item with the permission of chair.

Minutes of the Meeting:

Prof. R. Chidambaram, Chairman, BoS opened the meeting by welcoming and introducing the external members to the internal members and thanked them for accepting the invitation to attend the board of studies meeting and the meeting thereafter deliberated on agenda items that has been approved. The following points were discussed in the meeting.

Item No: BoS/2023/BPT/ 3.1	To discuss and approve the minutes of the 2nd BoS meeting, which was held on 14-05-2022. <ul style="list-style-type: none">➤ The committee overviewed the previous meeting discussion and approved.
Item No: BoS/2023/BPT/ 3.2	To discuss and approve the curriculum and syllabi for V and VI semesters Bachelor of Physiotherapy Programme under College of Physiotherapy, SMVEC autonomous regulation 2021. <ul style="list-style-type: none">➤ The BoS approved the V and VI semesters syllabi with below mentioned modification.➤ The course title ‘Clinical orthopaedics for physiotherapy’ was changed as ‘Clinical orthopaedics & traumatology for physiotherapy’.➤ In the course ‘Clinical orthopaedics & traumatology for physiotherapy’ under unit 2, both bone fractures of ulna and radius was changed into fracture both bone of forearm.➤ In the course ‘Clinical orthopaedics & traumatology for physiotherapy’ under 5th unit topic arthroscopy was included.➤ In the course ‘General medicine, Paediatrics & Psychiatry’ under unit 4, clinical hours was changed to 10 hours from 20 hours. In unit 2, 10 hours was added as clinical hours.➤ The course ‘Evaluation measurement and outcome measures’ was removed from the Vth semester syllabi.➤ In clinical training case presentation proforma was added.➤ In the course ‘Physiotherapy in orthopaedic conditions’ under unit 4 knee complex, ‘sub acromial bursitis’ was removed and the same was added in the shoulder complex.➤ In the course ‘Health Promotion and fitness’ under unit 2, topic ‘Exercise testing & agility test’ was included.

R. Chidambaram

AA Anwarulaga

	<i>The above modification where incorporated in the syllabi & it is annexed in annexure no.1.</i>
Item No: BoS/2023/BPT/ 3.3	<p>To discuss the 2021–26 batch II end semester examination results for BPT programme.</p> <ul style="list-style-type: none"> ➤ The committee overviewed the results. <p><i>Please see annexure no. 2.</i></p>
Item No: BoS/2023/BPT/ 3.4	<p>To discuss & confirm the panel of external examiners to the end semester examinations for the academic year 2023-24.</p> <ul style="list-style-type: none"> ➤ The BoS meeting approved the examiners list. <p><i>Please see annexure no.3.</i></p>
Item No: BoS/2023/BPT/ 3.5	<p>To discuss and confirm the question paper setter to the end semester examinations for the academic year 2023-24.</p> <ul style="list-style-type: none"> ➤ The BoS members approved the paper setter list. <p><i>Please see annexure no.4.</i></p>
Item No: BoS/2023/BPT/ 3.6	<p>To discuss and confirm the revaluation system in B.P.T. curriculum.</p> <ul style="list-style-type: none"> ➤ In existing SMVEC Autonomous regulation R-2021 for Bachelor of Physiotherapy Programme, there is no option for re-evaluation of end semester examination answer scripts. It is proposed to introduce the re-evaluation scheme from May/June 2023 end semester examinations onwards with the approval of experts from Board of Studies. ➤ Proposed introduction of revaluation scheme under clause 12 examinations. <p>12.4 Revaluation</p> <p>Students can get their answer scripts revalued by submitting an application along with the prescribed fees to the Controller of Examinations. The revaluation is extended to students those who have maximum of two arrears in theory papers and the Practical arrears are not taken into the account.</p>

	<p>The Controller of Examinations shall get the answer script revalued by appointing an examiner other than the one who has valued the script earlier. If the difference in marks awarded to an answer script by the examiners is less than 15 percent of the total marks earmarked for the End Semester Examination, then the average of marks awarded by the examiners is taken as the mark scored in the examination. If the difference in marks is greater than 15 percent, then the answer script will be evaluated by a third examiner and the mark awarded by the third examiner is taken as the final score.</p> <p>The above proposal was approved by Board of Studies.</p>
Item No: BoS/2023/BPT/ 3.7	Any other item with the Permission of chair.

The 3rd BoS meeting was concluded at 1.30 p.m. with a vote of thanks by Dr. A. A. Arivalagar, Dean Academics (core).

R. Chandrasekhar

AA Arivalagar



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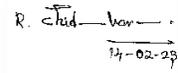
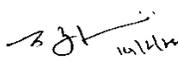
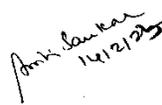


Venue: Conference Hall, SMVEC

Date: 14-02-2023

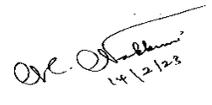
College of Physiotherapy

3rd Board of Studies meeting Attendance Sheet

Sl. No	Name of the member with designation & official address	Members as per UGC norms	Signature
1	Prof. Dr. R. Chidambaram M.P.T. Dean, College of Physiotherapy, Sri Manakula Vinayagar Engineering College, Madagadipet, Puducherry – 605107.	Chairman	
2	Prof. Dr. Balu M.P.T. Professor, School of Physiotherapy, Arupadaiveedu Medical College, Kirumambakkam, Puducherry – 607403. Email:balukhanphysio007@gmail.com	Subject expert (University Nominee)	
3	Prof. Dr. A. Dinakaran M.P.T. Principal, Adhiparasakthi College of Physiotherapy, Melmaruvathur – 603319. Email: apcopt1994@gmail.com	Subject expert (Academic Council Nominee)	
4	Prof. KSI. Dr. Murali Sankar M.P.T., Director, School of Physiotherapy, Arupadaiveedu Medical College, Kirumambakkam, Puducherry – 607403. Email: Director.sptpdy@vmu.edu.in	Subject expert (Academic Council Nominee)	

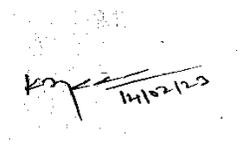
R. Chidambaram

A.A. Arunvalagar

5	Dr. S. D. Lakshmi Vasam B.P.T. Chief Physiotherapist, Sri Kumaran Physiotherapy Clinic, Villupuram. Email: lakmivasan@live.in	Representative from industry	
6	Dr. K. Ezhilan M.P.T. Chief Physiotherapist, Sri Manakula Vinayagar Medical College & Hospital, Kalitheerthalkuppam, Puducherry – 605107. Email: ezhilan.mpt@gmail.com	Member	
7	Dr. M. Nakkiran M.P.T. Assistant Professor, College of Physiotherapy, Sri Manakular Vinayagar Engineering College, Madagadipet, Puducherry- 605 107. Email.nakkiran.physio@smvec.ac.in	Member	
8.	Dr. S. Anbumalar M.E., Ph.D. Dean Academics(circuit), College of Physiotherapy, Sri Manakular Vinayagar Engineering College, Madagadipet, Puducherry- 605 107. Email: deanacademic@smvec.ac.in	Special Invitee	
9	Dr. A. A. Arivalagar M.Tech.,Ph.D. Dean Academics (core), College of Physiotherapy, Sri Manakula Vinayagar Engineering College, Madagadipet, Puducherry -605107. Email: deanacademic1@smvec.ac.in	Special Invitee	
10	Dr. J. Sathyanarayanan M.D. Associate Professor, Department of Medicine, Sri Manakula Vinayagar Medical College & Hospital, Kalitheerthalkuppam, Puducherry – 605107. Email: drisathyanarayannan@gmail.com	Subject expert (special invitee)	

R. Chandrasekaran

AA Arivalagar

11	Dr. K. Manikandan M.S.(ortho.), Associate Professor, Department of Orthopaedics Sri Manakula Vinayagar Engineering College & Hospital, Kalitheerthalkuppam, Puducherry – 605107. Email: manikandan7008@gamil.com	Subject expert (Special Invitee)	 14/02/23
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Annexure - I
3rd Board of Studies Meeting

Suggestion in the Syllabi given by members in the BoS meeting are summarized as below,

Sl.No.	Regulations	Semester	Course name with Code	Unit	Suggestion given by BoS members	Changes incorporated
1.	R-2021	V	“Clinical Orthopaedic & traumatology for physiotherapist” U21BPTT531	-	Course title can be modified as “Clinical Orthopaedics & traumatology for physiotherapy”.	“Clinical Orthopaedics & traumatology for physiotherapy”.
2.	R-2021	V	“Clinical Orthopaedic & traumatology for physiotherapy” U21BPTT531	2	The term “both bone fractures of ulna & radius” can be altered as “fracture both bone of forearm”.	“Fracture both bone of forearm”.
3.	R-2021	V	“Clinical Orthopaedic & traumatology for physiotherapy” U21BPTT531	5	The topic “arthroscopy” can be included.	arthroscopy
4.	R-2021	V	“General Medicine, Paediatrics & Psychiatry” U21BPTT533	4	Clinical hours can be reduced from 20 to 10 hours.	10 hours of clinical hours.
5.	R-2021	V	“General Medicine, Paediatrics & Psychiatry” U21BPTT533	2	10 hours can be added in clinicals.	10 hours of clinical hours.

6.	R-2021	V	Community Medicine U21BPTT534	-	Course title can be modified as “Community Health & Rehabilitation”.	Changed as “Community Health & Rehabilitation”.
7.	R-2021	V	“Evaluation measurement and outcome measures”. U21BPTP535	-	This axillary course can be removed from the syllabi.	Removed.
8.	R-2021	V	“Observation on clinical conditions” U21BPTP537	-	The course title can be changed as “Clinical training” and “Case Presentation Proforma” needs to be added.	In clinical training, case Presentation Proforma had been included.
9.	R-2021	VI	“Physiotherapy in Orthopaedic Conditions”. U21BPTP538	5.6	The topic, “Sub acromial bursitis” should be removed and the same need to be added in 5.2.	The topic “Sub acromial bursitis” was added in 5.2.
10.	R-2021	VI	“Health promotion and fitness”	2	Assessment need to be in elaborate manner.	The topic “Exercise testing” was added.
11.	R-2021	VI	“Clinical Neurology and Neurosurgery for Physiotherapist” U21BPTP640	-	Corse title can be modified as “Clinical Neurology and Neurosurgery for Physiotherapy”	“Clinical Neurology and Neurosurgery for Physiotherapy”
12.	R-2021	VI	“Case Presentation and discussion” U21BPTP644	-	This course can be merged with “Clinical training”.	“Clinical training” hours had been increased from 90 to 125 hours.

Curriculum Structure for V Semester

Core Courses					
Sl.No.	Course Code	Course Name	Theory (in hours)	Practical (in hours)	Total (in hours)
1.	U21BPTT531	Clinical Orthopaedics & Traumatology for Physiotherapy	100	-	100
2.	U21BPTT532	General Surgery, Plastic Surgery & OBG	90	-	90
3.	U21BPTT533	General Medicine, Paediatrics & Psychiatry	120	-	120
4.	U21BPTT534	Community Health and Rehabilitation	60	-	60
Auxiliary Courses					
5.	U21BPTT536	Diagnostic imaging for physiotherapy	30	15	45
6.	U21BPTT537	Clinical training	-	125	125
Total Hours:					540

	<ul style="list-style-type: none"> i) Scaphoid fracture j) Fracture of metacarpals k) bennet's fracture l) fracture of the phalanges m) Dislocation of shoulder & elbow <p>3. Fracture & dislocation of lower limb:</p> <ul style="list-style-type: none"> i. Causes, clinical features, mechanism of injury, complication, conservative & surgical management for following injuries. a) Fracture neck, shaft and condyles of femur b) Fracture Patella c) Fracture of tibial condyles & bothbone leg fracture. d) Fracture calcaneum. e) Dislocation of hip & knee. 	10	5	15
III	<p>1. Deformities & Anomalies:</p> <ul style="list-style-type: none"> i. Deformities of the spine. ii. Deformation of the lower limb <p>2. Degeneration of inflammatory condition:</p> <ul style="list-style-type: none"> i. Osteo-orthosis/ arthritis ii. Spondylosis iii. Spondylolisthesis iv. Rheumatoid arthritis v. Ankylosing spondylitis. <p>3. Infective conditions</p> <ul style="list-style-type: none"> i. Septic arthritis ii. Osteomyelitis iii. Tuberculosis spine <p>4. Arthroplasty:</p> <ul style="list-style-type: none"> i. THR ii. TKR <p>5. Arthroscopy</p>	6	4	30
		6	4	
IV	<p>1. Soft tissue lesions:</p> <ul style="list-style-type: none"> i. Sprains & strains ii. Capsulitis iii. Bursitis iv. Tenosynovitis v. Tendonitis 	8	2	
V	<p>1. Peripheral nerve lesions:</p> <ul style="list-style-type: none"> i. Radial, median & ulnar nerve lesions ii. Sciatic nerve lesions iii. Lateral popliteal nerve lesions. <p>2. Hand injuries: Tendon & joint injury</p> <p>3. Amputation: Definition, levels of amputation, indications & complications</p>	14	6	20

	4. Spine: Cervical Compressive myelopathy with quadriparesis, post traumatic paraplegia & pott's paraplegia.			
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Recommended Text Books:

1. Mayil Vahanan Natarajan, "Textbook of Orthopaedics and Traumatology", 8th edition, Wolters Kluwer Pvt. Ltd., 2018.
2. Maheswari & Mhaskar, "Essential Orthopaedics", 7th edition, Jaypee publishers, 2022.
3. Adam's "outline of fractures", 12th edition, Elsevier, 2020
4. Apley's "System of Orthopaedics and fractures", 9th edition, CRC, 2017

R. Chidambaram

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General Surgery, Plastic Surgery and O.B.&G.

Course code: U21BPTT532

Total: 90 Hours

COURSE DESCRIPTION:

This course intends to familiarize students with principles of General surgery including various specialties like cardiovascular, thoracic, neurology and plastic surgery as well as to provide introduction to women's health which includes problems related to pregnancy and other disorders specific to women. It familiarizes the students with terminology and abbreviations for efficient and effective chart reviewing and documentation. It explores various conditions needing attention, focusing on epidemiology, pathology as well as primary and secondary clinical characteristics and their surgical and medical management. The purpose of this course is to make physiotherapy students aware of various surgical conditions general surgery and specialty surgeries so these can be physically managed effectively both pre as well as postoperatively.

OBJECTIVES:

At the end of the course, the candidate will be able to:

- Describe the effects of surgical trauma & anaesthesia in general.
- Describe pre-operative evaluation, surgical indications in various surgical approaches, management and post operative care in above mentioned areas with possible complications.
- Read & interpret findings of the relevant investigations.
- Normal and abnormal physiological events, complications and management of pregnancy (Pregnancy, Labour, Puerperium).
- Normal and abnormal physiological events, complications and management of uro- genital dysfunction (Antenatal, Postnatal and during menopause).

Units	Topics	Didactic Hours	Clinical Hours	Total Hours
I	GENERAL SURGERY	30	10	40
	1. Infection and inflammation: Acute & chronic signs, symptoms, complications & management.	3		
	2. Wounds and ulcers : Classification, healing & management,	2		
II	1. General : i. Anaesthesia types, Effect, indications , contraindications and postoperative complications ii. Haemorrhage and Shock, classification, iii. Water & Electrolyte imbalance	12	10	

	<p>iii. Surgery for coronary artery disease iv. Valvular surgeries v. Surgery for Congenital Heart Disease vi. Peripheral arterial disorder, Burger's disease, Raeynaud's disease and Aneurysm Gangrene, Amputation, DVT</p> <p>Plastic surgery : Skin grafts & flaps – Types, indications with special emphasis to burns, wounds</p> <p>i. Ulcers, complications and postoperative care ii. Tendon transfers, with special emphasis to hand, foot & facial paralysis, & repair of Flexor & Extensor Tendon Injuries iii. Keloid & Hypertrophied scar management iv. Reconstructive surgery of peripheral nerves Micro vascular surgery- reimplantation & revascularization</p>			
	OB&G	15	10	25
IV	<p>1) physiology of pregnancy: i. Development of the foetus, Normal/ Abnormal / multiple gestations, ii. Common Complications during pregnancy: a. Anaemia, b. P I H c. Eclampsia d. Diabetes, e. Hepatitis, TORCH infection or HIV</p> <p>2) physiology of labour: i. Normal – Events of Ist, IInd & IIIrd Stages of labour ii. Complications during labour & management iii. Caesarean section- elective/ emergency & post operative care</p>	5		

V	1) Post natal period: i. Puerperium & Lactation ii. Complications of repeated child bearing with small gaps iii. Methods of contraception 2) Uro-genital dysfunction: Uterine prolapse – Classification & Management (Conservative /Surgical) Cystocele, Rectocele, Enterocoele, Urethrocele	2	10	

RECOMMENDED TEXT BOOKS

1. Bailey & Love's "Short Practice of Surgery", 28th edition, CRC Press, 2022.
2. S. Das "A Concise Textbook of Surgery", 6th edition, Dr. S. Das, 2010.

GENERAL MEDICINE, PAEDIATRICS AND PSYCHIATRY

Subject code: U21BPTT533

Theory hours: 120 hours

COURSE DESCRIPTION:

This subject follows the basic science subjects to provide the knowledge about relevant aspects of General Medicine, Pediatric and Psychiatry. The student will have a general understanding of the diseases the therapist would encounter in their practice. The objective of this course is that discussion the student will be able to list the etiology, pathology, clinical features and treatment methods for various medical conditions.

COURSE OBJECTIVES:

At the end of the course, the candidate will:

1. Be able to describe Etiology, Pathophysiology, Signs & Symptoms & Management of the Endocrinal, Metabolic, Geriatric & Paediatric & Psychiatric, Nutrition Deficiency conditions.
2. Be able to describe Etiology, Pathophysiology, Signs & Symptoms, Clinical Evaluation & Management of the various Rheumatologic Cardiovascular & Respiratory Conditions.
3. Acquire skill of history taking and clinical examination of Musculoskeletal, Respiratory, Cardio-vascular & Neurological System as a part of clinical teaching.
4. Be able to interpret auscultation findings with special emphasis to pulmonary system.
5. Study Chest X-ray, Blood gas analysis, P.F.T. findings & Haematological studies, for Cardiovascular, Respiratory, Neurological & Rheumatological conditions.
6. Be able to describe the principles of Management at the Intensive Care Unit.
7. Be able to acquire the skills of Basic Life Support. 8. Acquire knowledge of various drugs used for each medical condition to understand its effects and its use during therapy.

Unit	Topics	Didactic Hours	Clinical Hours	Total Hours
I	GENERAL MEDICINE INFECTIONS: Mode of spread, Effects of Infection in the body – and preventive measures of the following diseases: Bacteria - Tetanus Viral - Herpes simplex, Herpes Zoster, Varicella, Measles, Hepatitis B, AIDS. Protozoal – Filaria.	10	8	18

	<p>POISONING:</p> <p>Clinical features – general management – common agents in poisoning – pharmaceutical agents – drugs of misuse – chemical pesticides – Envenomation.</p> <p>FOOD AND NUTRITION:</p> <p>Assessment – Nutritional and Energy requirements. Deficiency diseases – vitamins (A, B, C, D& K) and Minerals (iron, calcium phosphorus, iodine) clinical features and treatment.</p> <p>METABOLIC & ENDOCRINE DISEASES:</p> <p>Definition, aetiology, types, complications & management of: Diabetes mellitus Diseases of thyroid & parathyroid, adrenal and pituitary glands, Obesity.</p> <p>HEMATOLOGY:</p> <p>Clinical aspect of Anemia: iron deficiency, B12 & Folic acid deficiencies, Types of bleeding diathesis,. Clinical features and management of Hemophilia.</p>			
II	<p>GIT:</p> <ul style="list-style-type: none"> • Clinical manifestations of gastrointestinal disease – Etiology, clinical features, diagnosis, complications and treatment of the following conditions: Reflux Oesophagitis, Achlasia Cardia, Carcinoma of Oesophagus, GI bleeding, Peptic Ulcer disease, Carcinoma of Stomach, Pancreatitis, Malabsorption Syndrome, Ulcerative Colitis, Peritonitis, Infections of Alimentary Tract . • Clinical manifestations of liver diseases – Aetiology, clinical features, diagnosis, complications and treatment of the following conditions : Viral Hepatitis, Wilson’s Disease, Alpha1-antitrypsin deficiency, Tumors of the Liver, Gall stones, Cholecystitis. <p>DERMATOLOGY:</p> <p>Examination and clinical manifestations of skin diseases; Causes, clinical features and management of the following skin conditions: Leprosy, Psoriasis, Pigmentary Anomalies, Vasomotor disorders, Dermatitis, Coccal and Fungal Parasitic and Viral infections.</p>	31	10	41

RESPIRATORY DISEASE:

Definition, Etiology, Clinical features, signs and symptoms, complications, management and treatment of following lung disease:

- Chronic bronchitis, Emphysema
- Asthma
- Bronchiectasis, cystic fibrosis
- upper respiratory tract infections
- Pneumonia, tuberculosis, lung abscess, fungal diseases, interstitial lung disease
- Disease of pleura (Pleural effusion, Pneumothorax, Hydropneumothorax, Emphysema)
- Disease of diaphragm and chest wall deformities
- Respiratory failure – definition, types ,causes ,clinical features ,diagnosis and management.

NERVOUS SYSTEM:

- CVA – thrombosis, embolism, hemorrhage
- Extrapramidal lesion – Parkinsonism, athetosis, chorea, dystonia.
- Disorders of cerebellar infarction
- Disorders of muscle – myopathy
- Disease of Anterior horn cells: SMA,MND, Syringomyelia ,poliomyelitis .
- Multiple sclerosis
- Infections of nervous system – encephalitis, neurosyphilis, meningitis.
- Tetanus, transverse myelitis, tabes dorsalis, TB spine
- Epilepsy

CARDIO-VASCULAR SYSTEM :

Definition, aetiology, clinical features & management of: cardiac failure, rheumatic fever, infective endocarditis, ischaemic heart disease, hypertension, pulmonary embolism & pulmonary infarction and deep vein thrombosis.

- Congenital heart disease – ASD, VSD, Fallot's tetralogy, PDA.

III	<p>RENAL CONDITION:</p> <p>Acute & Chronic Renal Failure Urinary tract infections.</p> <p>RHEUMATOLOGICAL CONDITION:</p> <p>Introduction to autoimmune disease Systemic lupus erythematosus, Polymyositis, Dermatomyositis, Polyarthrits nodosa, Scleroderma, Rheumatoid arthritis, Osteoarthritis.</p> <p>ENT:</p> <p>Otitis media, otosclerosis, functional achonia and deafness, facial palsy – classification, medical and surgical management.</p> <p>OPHTHALMOLOGY:</p> <p>Ophthalmologic surgical conditions, refractions, conjunctivitis, glaucoma, corneal ulcer, iritis, cataract, detachment of retina, defects of extra -ocular muscles surgical management.</p> <p>GERIATRIC:</p> <p>Physiology of aging /degenerative changes – musculoskeletal /neuromotor /cardio-respiratory /metabolic, endocrine, cognitive, immune systems, osteoporosis, alzhemimers, dementia</p> <p>List disease commonly encountered in the elderly population and causing disability</p>	16		16
UNIT	<u>PAEDIATRICS</u>			
IV	<p>GROWTH AND DEVELOPMENT [from child birth to 12 years</p> <ul style="list-style-type: none"> • Normal uterine development of foetus . • Growth and development of child – motor, mental, language and social. <p>HIGH RISK PREGNANCY:</p> <p>Perinatal, Postnatal problems and management (Birth injuries) Neck, shoulder dystocia, Brachial plexus injury,</p>			

<p>Fractures, Birth Asphyxia, Inherited disease, Maternal infection (viral; bacterial) Gestational diabetes, Pregnancy induced hypertension, Epilepsy, sepsis.</p> <p>DEVELOPMENTAL DELAY:</p> <p>Etiology, pathophysiology, classification, clinical signs & symptoms.</p> <p>CHILD AND NUTRITION :</p> <ul style="list-style-type: none"> • Significance of breast feeding. • Problems and management of LBW infants, • Nutritional requirements, malnutrition syndrome, vitamin deficiency disorders. <p>COMMON INFECTIOUS DISEASE IN CHILDREN:</p> <p>Tetanus, diphtheria, mycobacterial measles, chicken pox, gastroenteritis, HIV.</p> <p>ORTHOPEDIC AND NEUROLOGICAL DISORDERS:</p> <ul style="list-style-type: none"> • Cerebral palsy (Define and briefly outline etiology of prenatal, perinatal and postnatal causes: briefly mention pathogenesis, types of cerebral palsy (classification) findings on examination; general examination of C.N.S. Musculoskeletal and respiratory system and management). • Meningitis, encephalitis • Hydrocephalus • Ataxia • Arnold-chiari malformation, dandy walker syndrome • Basilar impression & cerebral malformations • Floppy infant • GBS • Poliomyelitis • Epilepsy • Neural tube defects • Neuropathy, infantile hemilegia. • Still's disease • Limping child • DDH, perthes disease, CTEV, torticollis. 	30	10	40
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RESPIRATORY DISEASES :

Bronchiectasis, Bronchopneumonia, Bronchial asthma, Lung Abscess Tuberculosis, SIDS, cystic fibrosis, Acute pediatric respiratory distress syndrome.

CARDIOVASCULAR DISORDERS :

Rheumatic heart disease ,subacute bacterial endocarditis, congenital heart defects -VSD ,ASD, PDA ,TOF ,Transposition of Great Vessels RHD.

GENETIC DISORDERS :

- Types of genetic disorder
- Downs syndrome
- Muscular dystrophy -Types Mode of inheritance
Clinical manifestation Progression and prognosis of disease, Evaluation (Genetic screening test), Treatment.
- Common Genetic disorders.

HAEMATOLOGICAL DISORDER :

Iron deficiency anemia, Aplastic anemia, sickle cell disease, hemophilia, thalassemia, leukemia.

MISCELLANEOUS :

- Feeding and communication difficulty,
- Sensory disorders – problems due to loss of vision and hearing
- Learning and behavioural problems - Attention Deficit Hyperactivity Disorder & Autism, Mental retardation.

CLINICAL ASSESSMENTS:

- NICU-Overview.
- Neonatal assessment including neonatal reflex.
- Pre-term baby assessment.
- Low birth weight baby assessment.
- Examination of the nervous system
- Examination of respiratory system
- Examination of cardiovascular system
- Community programmes: International (WHO),

	national and local for prevention measures for disease. Outline the immunization schedule for children			
UNIT	<u>PSYCHIATRY</u>			
V	<ul style="list-style-type: none"> • Psychiatric History, classification and mental status examination. • Organic mental disorders (delirium, dementia, organic amnesic syndrome and other organic mental disorders). • Mood disorders (manic, depressive episodes, bipolar mood disorders). • Neurotic stress related and somatoform disorders (Anxiety disorder, phobic anxiety disorders, obsessive compulsive disorders, adjustment disorders, dissociative disorders, somatoform disorders post-traumatic stress Disorder. 	5		5

RECOMMENDED REFERENCE BOOK:

1. Davidson’s “Principles and practice of Medicine”, 23rd edition, Elsevier, 2018.
2. O.P. Ghai, “Essential Paediatrics”, 9th edition, CBS Publishers, 2019.
3. Graham Davey, Nick Lake “Clinical Psychology”, 2nd edition, Taylor & Francis group, 2015.
4. M.S. Bhakia “Short textbooks of Psychiatry”, 7th edition, CBS Publishers, 2019.

COMMUNITY HEALTH AND REHABILITATION

SUBJECT CODE: U21BPTT534

TOTAL HOURS: 60Hours

COURSE DESCRIPTION:

This course is designed to assist the students to acquire knowledge of the disease and help the students to understand the limitation imposed by the diseases.

COURSE OBJECTIVES:

At the end of the course the candidate shall be able to understand the contents given in the syllabus.

Units	Topics	Didactic Hours	Clinical Hours	Total Hours
I	<p>1.INTRODUCTION</p> <ul style="list-style-type: none">i. Natural history of diseasesii. Influence of social, economic, cultural aspect of health and diseasesiii. Measures of prevention for disease with disability<ul style="list-style-type: none">a. Methods of intervention for disease with disability. <p>2.HEALTH CARE DELIVERY SYSTEM AND PUBLIC HEALTH ADMINISTRATIVE SYSTEM</p> <ul style="list-style-type: none">i. National levelii. State level <p>3.NATIONAL HEALTH PROGRAMME</p> <ul style="list-style-type: none">i. Role of social, economic, cultural factors in the implementation of National programmesii. Primary health care<ul style="list-style-type: none">a. Objectives and implementation.	10		10
II	<p>1.OCCUPATIONAL HEALTH</p> <ul style="list-style-type: none">i. Definitionii. Scopeiii. Occupational diseasesiv. Prevention of occupational diseases and hazardsv. Role of E.S.I.<ul style="list-style-type: none">a. Employee stateb. insurance scheme and its benefit. <p>2.SOCIAL SECURITY MEASURES</p>	10		10

	<ul style="list-style-type: none"> i. Protection of occupational hazards, accidents and diseases ii. Workmen compensation act iii. Environmental safety. 			
III	<p>1.FAMILY WELFARE PROGRAMME</p> <ul style="list-style-type: none"> i. Objectives of family welfare programme ii. Family planning methods iii. General idea of Advantages and disadvantages iv. Concepts of planned pregnancy <ul style="list-style-type: none"> a. Population dynamics. <p>2.COMMUNICABLE DISEASES (With reference to reservoir, mode of transmission, route of entry and levels of prevention)</p> <ul style="list-style-type: none"> i. Poliomyelitis ii. Meningitis iii. Encephalitis iv. Tuberculosis v. Filariasis vi. Leprosy vii. Tetanus viii. Measles ix. Malaria <p>Universal immunization programme-ARI, Diarrhea & polio control programme.</p> <p>3.EPIDEMIOLOGY OF</p> <ul style="list-style-type: none"> i. Rheumatic heart disease ii. Chronic degenerative disease iii. Cerebro vascular accident iv. Blindness v. Accident vi. Cancer 	15		15
IV	<p>1.MENTAL HEALTH</p> <ul style="list-style-type: none"> i. Community aspect of mental health. <ul style="list-style-type: none"> a. Role of physiotherapist in mental health problem incerebral palsy, mental retardation. <p>2.HEALTH EDUCATION</p> <ul style="list-style-type: none"> i. Philosophy ii. Main principles and objectives iii. Methods and tools of communication iv. Health education versus health legislation v. Education versus propaganda vi. Role of community leader in health education vii. Role of health professionals in health education 	15		15

	<p>Element of planning a health education programme with special emphasis on community participation</p> <p>3. COMMUNITY BASED REHABILITATION VERSUS INSTITUTIONAL BASED REHABILITATION</p>			
V	<p>1. REVIEW OF</p> <p>i. Beliefs, values, norms, habits, taboos</p> <p>a. Their importance in learning and change process</p> <p>2. REVIEW OF</p> <p>i. Concept of perception</p> <p>ii. Attitudes</p> <p>iii. Socialization process</p> <p>iv. Learning and theories of learning</p> <p>v. Social change and change process</p> <p>a. Motivation needs</p> <p>3. VITAL HEALTH STATISTICS</p> <p>i. Basic concept</p> <p>ii. Mortality and morbidity rate</p> <p>iii. Period, age, causes of specific death rate</p> <p>a. Role of this rate as</p> <p>b. indicator of health and</p> <p>c. disease.</p>	10		10

RECOMMENDED TEXT BOOK:

1. K. Park "Textbook of Preventive and Social Medicine", 22nd edition, Generic Publisher, 2013.

DIAGNOSTIC IMAGING FOR PHYSIOTHERAPY

COURSE CODE: U21BPTP536

TOTAL HOURS: 45hrs

COURSE DESCRIPTION:

This course covers the study of common diagnostic and therapeutic imaging tests. At the end of the course students will be aware of the indications and implications of commonly used diagnostic imaging tests as they pertain to patient's management. The course will cover that how X-Ray, CT, MRI, Ultrasound and Other Medical Images are created and how they help the health professionals to save lives.

COURSE OBJECTIVE:

The objectives is to train Physiotherapy students to become a skilled and competent to interpret various diagnostic / interventional imaging studies both conventional and advanced imaging

Units	Topics	Didactic Hours	Clinical Hours	Total Hours
I	1.IMAGE INTERPRETATION i. Introduction to Radiology ii. Evolution of X Rays iii. Role of Medical Imaging iv. Radiography(x-rays) v. Fluoroscopy vi. Computed Tomography (CT) vii. Magnetic Resonance Imaging (MRI) viii. Ultrasound	3	1	4
	1. RADIOGRAPHY i. Equipment components ii. Procedures for Radiography iii. Benefits versus Risks and Costs iv. Indications and Contraindications.	3	2	5
	2. MAMMOGRAPHY i. Equipment components ii. Procedures for Mammography iii. Benefits versus Risks and Costs iv. Indications and contraindications.	3	2	5

II	3. FLUOROSCOPY i. What is Fluoroscopy? ii. Equipment used for fluoroscopy iii. Indications and Contra indications iv. The Findings in Fluoroscopy v. Benefits versus Risks and Costs.	3	2	5
	4. COMPUTED TOMOGRAPHY (CT) i. What is Computed Tomography? ii. Equipment used for Computed Tomography iii. Indications and Contra indications iv. The findings in Computed Tomography v. Benefits versus Risks and Costs.	5	2	7
III	MAGNETIC RESONANCE IMAGING (MRI) i. What is MRI? ii. Equipment used for MRI iii. Indications and Contra indications iv. The Findings in MRI v. Benefits versus Risks and Costs vi. Functional MRI.	5	2	7
	ULTRASOUND i. What is Ultrasound? ii. Equipment used for ultrasound iii. Indications and Contra indications iv. The findings in ultrasound v. Benefits versus Risks and Costs. vi. Echocardiography? Indications and contraindication	5	2	6
V	NUCLEAR MEDICINE i. What is Nuclear medicine? ii. Equipment used for Nuclear medicine iii. Indications and Contra indications iv. Benefits versus Risks and Costs	3	2	4

RECOMMENDED REFERENCE BOOKS

1. Brant and Helms, Fundamentals of diagnostic radiology, 5th edition, Wolters Kluwer, 2019.
2. Chapman & Nakielny's "Aids to Radiological Differential Diagnosis", 7th edition, 2019.

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CLINICAL TRAINING

Course code: U21BPTP537

Total: 125hrs

Course Description

The Student will learn the Subjective data taking procedure.

Course Objective

At the end of the course the students will able to

1. Understand the history taking procedure
2. Various procedures in patient's assessments
3. Learn the various treatment procedures

Sl. No	TOPIC	HOURS
1.	Demographic data Collection Socioeconomic	
2.	history collection	
3.	Social behavior and its influence on health	
4.	Schedule the patients treatment according to their condition	

SCHEME OF EXAMINATION

IA	FINAL EXAM	TOTAL
50	50	100

END SEMESTER EXAMINATION

Sl. No	Components	Marks
1	2 case presentation	25 × 2 = 50

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SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE

(An Autonomous Institution)

(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
(Accredited by NBA-AICTE, New Delhi, Accredited by NAAC with 'A' Grade)
Madagadipet, Puducherry - 605 107



COLLEGE OF PHYSIOTHERAPY

B.P.T. PROGRAMME

CASE ASSESSMENT

Name:

Date of Assessment:

Age:

Gender:

Occupation:

Address:

Phone No:

Hand dominance: Presenting

Complaints:

History of presenting complaints:

Medical history:

Surgical history:

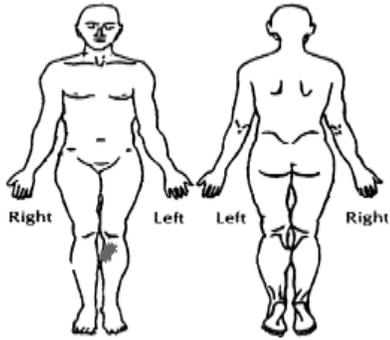
Social history:

Personal history:

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Pain assessment:



Site:

Side:

Duration:

Type:

Severity on VAS: _____

No pain

Max pain

Aggravating factors:

Relieving factors:

On observation:

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Curriculum Structure for VI Semester

Core Courses					
Sl.No.	Course Code	Course Name	Theory (in hours)	Practical (in hours)	Total (in hours)
1.	U21BPTP638	Physiotherapy in Orthopaedic conditions (Theory)	90	-	90
2.	U21BPTP641	Physiotherapy in Orthopaedic conditions (Practical)	90	-	90
3.	U21BPTP639	Physiotherapy in General medicine and General Surgery (Theory)	60	-	60
4.	U21BPTP642	Physiotherapy in General medicine and General Surgery (Practical)		90	90
5.	U21BPTP640	Clinical Neurology and Neuro Surgery for Physiotherapy (Theory)	90	-	90
Auxillary Courses					
6.	U21BPTP643	Principles of Management	30	-	30
7.	U21BPTP645	Health Promotion & Fitness	15	15	30
8.	U21BPTP646	Clinical Training		90	90
Total Hours: 570					

PHYSIOTHERAPY IN ORTHOPEDIC CONDITIONS

Course Code: U21BPTP638

Total: 90 Hours

Course Description:

The subject serves to integrate the knowledge gained by the students in orthopedics with skills to apply these in clinical situations of dysfunction and musculoskeletal pathology.

Physiotherapy in Orthopedic condition focuses on maximizing functional independence and well-being. The course uses a patient-centered model of care with multi-system assessment, evidence based interventions and a significant patient education component to promote a healthy, active lifestyle and community-based living.

Course Objectives:

The objective of the course is that after the specified hours of lectures and demonstrations the student will be able to identify disabilities due to musculoskeletal dysfunction, plan and set treatment goals and apply the skills gained in exercise therapy and electrotherapy in these clinical situations to restore musculoskeletal function.

SYLLABUS

Unit	Topic	Didactic Hours	Clinical Hours	Total Hours
I	1. Fractures & Dislocations i. Fractures and dislocation of the Spine & Extremities – classification, complications, PT management of following: a) Upper limb fractures & dislocations. b) Lower limb fractures and dislocations including pelvis. c) Spinal fractures ii. PT management in complications - early & late - shock, compartment syndrome, VIC, fat embolism, delayed and mal-union, RSD, myositis ossificans, AVN, pressure sores etc. iii. Dislocation of Shoulder, Elbow, Hip & Knee	15	5	20

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II	<p>1. Soft Tissue Injuries</p> <ul style="list-style-type: none"> (i) Synovitis (ii) Capsulitis (iii) Tendonitis (iv) Rupture of tendons (v) Cartilage & meniscal injuries (vi) Fasciitis (vii) Burns <p>2. Deformities</p> <ul style="list-style-type: none"> (i) Congenital: CTEV, CDH, Torticollis, pes planus, pes cavus and other common deformities. (ii) Acquired: scoliosis, kyphosis, coxa vara, genu varum, valgum and recurvatum. 	5	5	10
III	<p>1. Infectious diseases of the bone & joints</p> <ul style="list-style-type: none"> (i) Osteomyelitis – acute and chronic (ii) Septic arthritis and Pyogenic arthritis (iii) TB spine and major joints - knee and hip <p>2. Degenerative and Inflammatory Conditions</p> <ul style="list-style-type: none"> (i) Osteoarthritis - emphasis on knee, hip and hand (ii) Rheumatoid Arthritis, Ankylosing spondylitis (iii) Gout, Perthes disease 	15	5	20
IV	<p>1. Peripheral Nerve Injury</p> <p>Physiotherapy management for peripheral nerve injuries.</p> <p>2. Amputation</p> <p>Definition, levels, indications, types, PT management for various levels of amputation.</p>	5		5
	<p>1. Regional Conditions</p> <p>(i) Spine Complex</p> <ul style="list-style-type: none"> (a) Cervical & Lumbar spondylosis (b) Intervertebral disc prolapses (c) Spinal canal stenosis (d) Spondylolysis, Spondylolisthesis (e) Coccydynia (f) Sacro-iliac joint dysfunction (g) Sacralisation, Lumbarisation 			

V	<p>(ii) Shoulder Complex Shoulder instabilities, Thoracic outlet syndrome (TOS), Reflex sympathetic dystrophy (RSD), and Impingement syndrome - conservative and post-operative PT management. Total shoulder replacement and Post operative PT management. Acromio clavicular joint injuries - rehabilitation. Rotator cuff tears-conservative and surgical repair. Subacromial decompression - Post operative PT Management, Subacromial bursitis.</p> <p>(iii) Elbow Complex Tennis and Golfer's elbow. Excision of radial head- Post operative PT management. Total elbow arthroplasty- Post operative PT management.</p> <p>(iv) Wrist and Hand Complex</p> <ul style="list-style-type: none"> (a) Wrist sprains (b) Dequervain's Tenosynovitis, Trigger and Mallet finger (c) Repair of ruptured flexor and extensor tendons (d) Carpal tunnel syndrome. 	25	10	35
	<p>(v) Hip Complex Joint surgeries - hemi and total hip replacement - Post operative PT management Management.</p> <p>(vi) Knee Complex</p> <ul style="list-style-type: none"> (a) ACL, PCL and MCL reconstruction surgeries - Post operative rehabilitation (b) Meniscectomy and meniscal repair - Post operative management. (c) Pre patellar. (d) Anterior Knee pain: PFPS, Plica syndrome, patellar dysfunction and Hoffa's syndrome etc. - conservative management (e) TKR- rehabilitation protocol (f) Patellar tendon ruptures and Patellectomy- rehabilitation <p>(vii) Ankle and foot Complex</p> <ul style="list-style-type: none"> (a) Ligamentous tears- Post operative management (b) TA rupture 			

	(c) Plantar fasciitis, Metatarsalgia, hammer toe			
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Recommended Text Books:

1. Jayant Joshi, Prakash Kotwal, "Essentials of Orthopaedic & Applied Physiotherapy", 3rd edition, Elsevier Publications, 2016.
2. David J. Magee, Robert C. Manske, "Orthopaedic Physical Assessment", 7th edition, Elsevier Publications, 2021.
3. Carrie M. Hall, Lori Thein Brody "Therapeutic Exercise: Moving towards Function", 4th edition, Wolters Kluwer, 2017.

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PHYSIOTHERAPY IN GENERAL MEDICINE AND GENERAL SURGERY

Course Code: U21BPTP639

Total: 60 Hours

Course Description:

Physiotherapy in General Medicine & General surgery emphasizes the management of techniques based on the best available evidence. Physiotherapy strategies for assessment and treatment address structural & functional impairments and activity limitation of individuals. The therapeutic approach is patient and family focused.

Course Objective:

At the end of the course the candidate will be able to:

1. Describe physiotherapy management of the various metabolic & nutrition deficiency condition.
2. Describe physiotherapy management of the various cardiovascular and respiratory condition.
3. Describe the principles of management at the MICU & SICU.

Units	Topics	Didactic Hours	Clinical Hours	Total Hours
	GENERAL SURGERY			
I	1. Physiotherapy in mother and child care – ante and post- natal management, early intervention and stimulation therapy in child care (movement therapy) 2. Geriatrics – handling of old patients and their problems. Complication common to all operations 3. Abdominal incisions. 4. Physiotherapy in pre and post-operative stages. Operations on upper G.I.T.- oesophagus, stomach, duodenum 5. Operations on large and small intestine – Appendisectomy, cholecystectomy, partial colectomy, ileostomy, hernia and herniotomy, hernioraphy, hernioplasty. 6. Physiotherapy in dentistry	12		
II	Burns and its treatment – physiotherapy burns, skin grafts, and reconstructive surgeries.	10		

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III	<p>1. Management of wound ulcers- Care of ulcers and wounds - Care of surgical scars-U.V.R. and other electro therapeutics for healing of wounds, prevention of hyper- granulated scars keloids,</p> <p>2. Electrotherapeutics measures for relief of pain during mobilization of scars tissues.</p>	12		
IV	<p>1. Physiotherapy in dermatology - Documentation of assessment, treatment and follow up skin conditions. U.V.R therapy in various skin conditions; Vitiligo; Hair loss; Pigmentation; Infected wounds ulcers. Faradic foot bath for Hyperhydrosis.</p> <p>2. Massage maneuvers for cosmetic purpose of skin; use of specific oil as medium; Care of anesthetic hand and foot; Evaluation, planning and management of leprosy- prescription, fitting and training with prosthetic and orthotic devices.</p>	12		
V	<p>1. Physiotherapy intervention in the management of Medical, surgical and radiation oncology cases</p> <p>2. ENT – sinusitis, non-suppurative and chronic suppurative otitis media, osteosclerosis, labyrinthitis, mastoidectomy, chronic rhinitis, laryngectomy, pharyngeal – laryngectomy, facial palsy.</p>	14		

RECOMMENDED TEXT BOOKS:

1. O’ Sullivan “Physical Rehabilitation”, 7th edition, F.A. Davis, 2019.
2. William E. Prentice, “Therapeutic Modalities”, 6th edition, MC Graw hill, 2021.
3. Joan E. Cash, “Textbook of Physiotherapists”, 4th edition, Mosby, 1987.

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CLINICAL NEUROLOGY AND NEUROSURGERY FOR PHYSIOTHERAPY

Course cord: U21BPTP640

Total: 90 hours

COURSE DESCRIPTION:

This subject follows the fundamental science subjects to provide the knowledge about relevant aspects of neurology & neurosurgery. The student will have a basic knowledge of the diseases the therapist would encounter in their practice. The objective of this course is that after 90 Hours of lectures and discussion the student will be able to list the etiology, pathology, clinical features and ways for treating various neurological conditions.

COURSE OBJECTIVES:

At the end of the course, the candidate will:

1. Be able to describe Aetiology, Pathophysiology, signs & Symptoms & Management of the various Neurological Conditions (or) disease.
2. Acquire skill of history taking and clinical examination of Neurological patients as a part of clinical teaching.
3. Be able to describe neuromuscular, musculoskeletal, cardio-vascular & immunological conditions, nutritional deficiencies, infectious diseases, & neuro transmitted conditions.
4. Acquire skill of clinical examination of a neonate / child with respect to the neurological condition

Unit	Topic	Didactic Hours	Clinical Hours	Total Hours
I	<p>1. GENERAL NEUROLOGICAL ASSESSMENT</p> <ul style="list-style-type: none"> i. Nervous system- history and examination ii. Conscious level assessment iii. Higher nutral function iv. Cranial nerve examination v. Motor, sensory, cerebellar & gait examination vi. Examination of the unconscious patients vii. The neurological observation charts <p>2. NEUROLOGICAL INVESTIGATIONS</p> <ul style="list-style-type: none"> i. investigation of the central and peripheral nervous systems ii. skull x-ray iii. computerized tomography scanning {CT} iv. magnetic resonance imaging {MRI} 			

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	<ul style="list-style-type: none"> v. ultrasound vi. angiography vii. radionuclide imaging viii. electroencephalography {EEG} ix. intracranial pressure monitoring x. evoked potentials xi. lumbar puncture xii. cerebrospinal fluid {CSF} xiii. electromyography/ nerve conduction studies xiv. neuro - otological test <p>3. CEREBRO –VASCULAR ACCIDENTS:</p> <p>Define stroke, TIA, RIA, stroke in evolution, multi infarct dementia and Lacunar infarct. Classification of stroke – Ischemic, hemorrhagic, venous infarcts. Risk factors, cause of ischemic stroke, causes of hemorrhagic stroke. Classification of hemorrhagic stroke, classification of stroke based on symptoms, stroke syndrome, investigations, differential diagnosis, medical and surgical management.</p> <p>4. HEAD INJURY:</p> <p>Etiology, classification, clinical signs & symptoms, investigations, differential diagnosis, medical management, surgical management and complications.</p> <p>5. BRAIN TUMORS AND SPINAL TUMORS:</p> <p>Classification, clinical features, investigations, medical and surgical management.</p> <p>6.INFECTIONS OF BRAIN AND SPINALCORD:</p> <p>Etiology, pathophysiology, classification, clinical signs & symptoms, investigations, differential diagnosis, medical management, surgical management and complications of following disorders:</p> <ul style="list-style-type: none"> i. Meningitis, Encephalitis ii. Neurosyphilis, HIV infection iii. Herpes, Leprosy, Tetanus iv. Poliomyelitis and Post-polio syndrome 	20	5	25
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	<p>7.COMPLICATIONS OF SYSTEMIC INFECTIONS ON NERVOUS SYSTEM</p> <p>Septic encephalopathy, AIDS, Rheumatic fever, Brucellosis, tetanus, and pertussis.</p> <p>8. MOVEMENT DISORDERS:</p> <p>Definition, etiology, risk factors, pathophysiology, classification, clinical signs & symptoms, investigations, differential diagnosis, medical management, surgical management and complications of following disorders:</p> <ol style="list-style-type: none"> i. Parkinson's disease ii. Dystonia, Chorea iii. Ballism's, Athetosis iv. Tics, Myoclonus v. Wilson's disease <p>9. CEREBELLAR AND COORDINATION DISORDERS:</p> <p>Etiology, pathophysiology, classification, clinical signs & symptoms, investigations, differential diagnosis, management.</p> <ol style="list-style-type: none"> i. Congenital ataxia ii. Friedreich's ataxia iii. Ataxia telangiectasia iv. Metabolic ataxia v. Hereditary cerebellar ataxia vi. Tabes dorsalis vii. Syphilis 			
II	<p>1. POLYNEUROPATHY:</p> <p>Classification of Polyneuropathies, Hereditary motor sensory neuropathy, hereditary sensory and Autonomic neuropathies, Amyloid neuropathy, acute idiopathic Polyneuropathies.</p> <p>Guillain-Barre syndrome – Causes, clinical features, management of GBS, Chronic Idiopathic Polyneuropathies, diagnosis of polyneuropathy, nerve biopsy.</p> <p>2. DISORDERS & DISEASES OF MUSCLE:</p> <p>Classification, etiology, signs & symptoms, investigations, imaging methods, Muscle biopsy, genetic</p>			

<p>counselling & management of muscle diseases emphasis</p> <ol style="list-style-type: none"> i. Muscular dystrophy ii. Myotonic dystrophy iii. Myopathy iv. Non-dystrophic myotonia <p>3. MOTOR NEURON DISEASES:</p> <p>Etiology, pathophysiology, classification, clinical signs & symptoms, investigations, differential diagnosis, medical management, and complications of following disorders:</p> <ol style="list-style-type: none"> i. Amyotrophic lateral sclerosis ii. Spinal muscular atrophy iii. Hereditary bulbar palsy iv. Neuromyotonia v. Post-irradiation lumbosacral polyradiculopathy <p>4. MULTIPLE SCLEROSIS:</p> <p>Etiology, pathophysiology, classification, clinical signs & symptoms, investigations, differential diagnosis, medical management, and complications</p> <p>5. DISORDERS OF MYONEURAL JUNCTION:</p> <p>Etiology, classification, signs & symptoms, investigations, management of following Disorders:</p> <ol style="list-style-type: none"> i. Myasthenia gravis ii. Eaton-Lambert syndrome iii. Botulism <p>6. SPINAL CORD DISORDERS:</p> <p>Anatomy and Functions of tracts, definition of spinal cord disorders, etiology, risk factors, pathophysiology, classification, clinical signs & symptoms, investigations, differential diagnosis, medical management, surgical management and complications of following disorders:</p> <ol style="list-style-type: none"> i. Spinal cord injury ii. Inter vertebral disc prolapse iii. Spinal epidural abscess iv. Transverse myelitis v. Viral myelitis, syringomyelia vi. Spina bifida vii. Sub-acute combined degeneration of the cord viii. Hereditary spastic paraplegia ix. Radiation myelopathy 	20	5	25
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	<ul style="list-style-type: none"> x. Progressive encephalomyelitis xi. Conus medullaris syndrome xii. Bladder & bowel dysfunction xiii. Sarcoidosis. 			
III	<p>1. DISORDERS OF LOWER CRANIAL NERVES & SPECIAL SENSES</p> <p>Etiology, clinical features, investigations, and management of following disorders</p> <ul style="list-style-type: none"> i. lesions in trigeminal nerve ii. trigeminal neuralgia iii. trigeminal sensory neuropathy iv. lesions in facial nerve v. facial palsy vi. bell's palsy vii. hemi facial spasm viii. Glossopharyngeal neuralgia ix. lesions of Vagus nerve x. lesions of spinal accessory nerve xi. lesions of hypoglossal nerve xii. Dysphagia – swallowing mechanisms, causes of dysphagia, symptoms, examination, and management of dysphagia. <p>2. HIGHER CORTICAL, NEURO PSYCHOLOGICAL AND NEUROBEHAVIOURAL DISORDERS</p> <ul style="list-style-type: none"> i. Epilepsy, physiology, classification, clinical features, investigations, medical & surgical management of following disorders – non-epileptic attacks of childhood, Epilepsy in childhood, seizures and epilepsy syndromes in adult. ii. Classification & clinical features of dementia, Alzheimer's disease. iii. Causes & investigations of coma, criteria for diagnosis of brain death. <p>3. PSYCHIATRY IN NEUROLOGY:</p> <ul style="list-style-type: none"> i. Psychiatric History, classification and mental status examination ii. Organic mental disorders (delirium, dementia, organic amnesic syndrome and other organic mental disorders) iii. Mood disorders (manic, depressive episodes, bipolar mood disorders) iv. Schizophrenia, delusional disorders and 	20	5	25

	<p>schizoaffective disorders</p> <p>v. Child psychiatry (mental retardation, developmental disorders, attention deficit, hyperkinetic disorder, enuresis, conduct disorders)</p> <p>vi. Disorders of adult personality and behaviour (specific personality disorders, habit and impulse disorders, gender identity disorders)</p> <p>vii. Stress, psychosomatic disorders, suicide,</p> <p>4. PERIPHERAL NEUROPATHY:</p> <p>Clinical diagnosis of focal neuropathy, neurotmesis, Axonotmesis, Neuropraxia. Etiology, risk factors, classification, neurological signs & symptoms, investigations, management, of following disorders – RSD, Nerve tumors, Brachial plexus palsy, Thoracic outlet syndrome, Lumbosacral plexus lesions, Phrenic & Intercostal nerve lesions, Median nerve palsy, Ulnar nerve palsy, Radial nerve palsy, Musculocutaneous nerve palsy, Anterior & Posterior interosseous nerve palsy, Axillary nerve palsy, Long thoracic nerve palsy, Suprascapular nerve palsy, Sciatic nerve palsy, Tibial nerve palsy, Common peroneal nerve palsy, Femoral nerve palsy, Obturator nerve palsy, Pudental nerve palsy.</p>			
IV	<p>1. TOXIC, METABOLIC AND ENVIRONMENTAL DISORDERS:</p> <p>Etiology, risk factors, classification, neurological signs & symptoms, investigations, management, of following disorders – Encephalopathy, Alcohol toxicity, Recreational drug abuse, Toxic gases & Asphyxia, Therapeutic & diagnostic agent toxicity, Metal toxicity, Pesticide poisoning, Environmental & physical insults, Plant & Fungal poisoning, Animal poisons, & Complications of organ transplantation.</p> <p>2. INTRODUCTION, INDICATIONS AND COMPLICATIONS OF FOLLOWING NEURO SURGERIES:</p> <p>Craniotomy, Cranioplasty, Stereotactic surgery, Deep brain stimulation, Burr-hole, Shunting, Laminectomy, Hemilaminectomy, Rhizotomy, Microvascular decompression surgery, Endarterectomy, Embolization, Pituitary surgery, Ablative surgery -</p>	7	2	9

	<p>Thalamotomy and Pallidotomy, coiling of aneurysm, Clipping of aneurysm, and Neural implantation.</p> <p>3. DEAFNESS, VERTIGO, AND IMBALANCE:</p> <p>Physiology of hearing, disorders of hearing, examination & investigations of hearing, tests of vestibular function, vertigo, peripheral vestibular disorders, central vestibular vertigo.</p> <p>4. NEURO-OPHTHALMOLOGY:</p> <p>Assessment of visual function – acuity, field, colour vision, Pupillary reflex, accommodation reflex, abnormalities of optic disc, disorders of optic nerve, tract, radiation, occipital pole, disorders of higher visual processing, disorders of pupil, disorders of eye movements, central disorders of eye movement</p>			
V	<p>1. PEDIATRICS IN NEUROLOGY:</p> <p>i. Normal development & growth ii. Breast feeding and immunization iii. Perinatal, Postnatal problems and management (Birth injuries) Neck, shoulder dystocia, Brachial plexus injury, Fractures iv. Congenital abnormalities and its management Problems and management of LBW infants</p> <p>2. DEVELOPMENTAL DELAY:</p> <p>Etiology, pathophysiology, classification, clinical signs & symptoms, investigations, differential diagnosis, medical management, surgical management and complications</p> <p>3. RESPIRATORY CONDITIONS OF CHILDHOOD:</p> <p>Pneumonia – Bacterial & Tubercular, Empyema, Asthma</p> <p>4. ORTHOPEDIC AND NEUROLOGICAL DISORDERS IN CHILDHOOD, CLINICAL FEATURES AND MANAGEMENT:</p> <p>i. Cerebral palsy ii. Meningitis, Encephalitis</p>	5	1	6

	<ul style="list-style-type: none"> iii. Hydrocephalus iv. Ataxia v. Arnold-Chiari malformation, Dandy walker syndrome vi. Basilar impression & Cerebral malformations vii. Down's syndrome viii. Floppy infant ix. GBS x. Poliomyelitis xi. Epilepsy xii. Neural tube defects xiii. Muscular dystrophies xiv. Neuropathy <p>5. NUTRITIONAL DISORDERS OF CHILDHOOD</p> <p>Rickets and scurvy, PEM (Kwashiorkor and Marasmus) INFECTIONS – Congenital & Neonatal, Mental retardation Coma in Paediatrics and Acute rheumatic fever</p>			
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Reference Books:

1. Davidson's "Principles and practice of Medicine", 23rd edition, Elsevier, 2018.
2. Sandhya A.Kamath, "API Textbook of Medicine", 12th edition, Jaypee Publishers, 2022.
3. P.J. Mehta's, "Practical Medicine", 21st edition, National Publications, 2018.
4. O.P. Ghai, "Essential Paediatrics", 9th edition, CBS Publishers, 2019.

PRINCIPLES OF MANAGEMENT

Course Code: U21BPTP643

Total: 30 Hours

Course Description:

This course is designed to students to acquire understanding the principles & methods of management in physiotherapy services & educational Programmes.

Course Objective:

At the end of the course the student will

1. Learn the management basics in fields of clinical practice, teaching, research and Physiotherapy practice in the communicating.
2. Acquire communications skills in relation with patients, seniors and other professionals.

Unit	Topics	Didactic Hours	Practical Hours	Total Hours
I	Introduction to Management Definition, Science or Art, Manager Vs. Entrepreneur, types of managers, managerial roles and skills, Evolution of management, Principles, Functions of management, Current trends and issues in management.	6	-	6
II	Management Process Planning, types of planning, motivation theories, leadership styles, Formal and informal organization, Line and staff authority, communication, process of communication, barrier in communication, effective communication, communication and IT.	6	-	6
III	Management of Physiotherapy Services (i) Planning: Patient care units, emergency management (ii) Human resources management: Recruiting, selecting, deploying, retaining, promoting. Patient classification system, Staff development & welfare (iii) Budgeting: Proposal, staff, equipment & supplies requirements	6	-	6

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	<p>(iv) Material management : Procurement, inventory control, Auditing & maintenance.</p> <p>(v) Directing & Leading: Delegation, participatory management, staff development, discipline maintenance</p> <p>(vi) Controlling / Evaluation: Physiotherapy rounds & visits, Quality assurance model, document of records & reports, performance appraisal</p>			
IV	<p>Organizational Behaviour & Human Relations</p> <p>(i) Human Resource Management, HR Planning, Recruitment, selection, Training and Development & Group dynamics.</p> <p>(ii) Public relations: Professional, Clinical & Social, Trade Unions, Collective bargaining.</p>	6	-	6
V	<p>Management of Educational Institutions</p> <p>(i) Physiotherapy institution</p> <p>(ii) College & Hostel: structure, committees & Management of equipments, Clinical & transport facilities, institutional records & reports</p>	6	-	6

Recommended Text Books:

1. C.B. Gupta, "Business Management", Sultan Chand Sons, 9th Edition, 2018.
2. L. M. Prasad, "Principles and Practice of Management", Sultan Chand & Sons, 10th Edition 2019.
3. Koontz O'Donnell, "Essentials of Management", Tata McGraw Hill, 9th Edition, 2012.
4. P C Tripathi, "Principles of Management", McGraw Hill, 6th Edition, 2017.
5. Catherine G. Page, "Management in physical Therapy Practices", F. A. Davis, 2nd Edition, 2015

HEALTH PROMOTION AND FITNESS

SUBJECT CODE: U21BPTP645

TOTAL HOURS: 30

COURSE DESCRIPTION:

This course includes discussion on the theories of health and wellness, including motivational theory, locus of control, public health initiative, and psycho-Social, spiritual and cultural consideration. Health risks, screening, and assessment considering epidemiological principles are emphasized. Risk reduction strategies for primary and secondary prevention, including programs for special populations are covered.

COURSE OBJECTIVES:

- a. Students will be able to know the principles and components of primary health care and the national health policies to achieve the goal of 'Health for All'.
- b. Learning Physiological changes occurring in various conditions in Women's Health relevant to Physiotherapy, and plan physiotherapy management for fitness
- c. Advice with clinical reasoning at urban, rural and community level for achieve physical fitness.
- d. Exploring physical fitness with students using this lesson plan can create personal fitness plan.
- e. Students will be able to explain the benefits of physical activity and nutrition for health, wellness, quantity & quality of life.

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Units	Topics	Didactic Hours	Clinical Hours	Total Hours
I	<p>1. PREVENTION PRACTICE:</p> <p>A holistic perspective for physiotherapy</p> <ol style="list-style-type: none"> i. Define Health ii. Predictions of Health Care iii. Comparing Holistic Medicine and Conventional Medicine iv. Distinguishing Three Types of Prevention Practice. <p>2. HEALTHY PEOPLE:</p> <ol style="list-style-type: none"> i. Definition of healthy people ii. Health education Resources iii. Physiotherapist role for a healthy community. 	4	4	8
II	<p>1. KEY CONCEPTS OF FITNESS :</p> <ol style="list-style-type: none"> i. Defining & Measuring Fitness ii. Assessment of Stress with a Survey iii. Visualizing Fitness iv. Screening for Mental and Physical Fitness v. Body Mass Index calculations. vi. Exercise testing. vii. Agility test. <p>2. FITNESS TRAINING :</p> <ol style="list-style-type: none"> i. Physical Activities Readiness ii. Physical Activities Pyramid iii. Exercise Programs iv. Evidence-Based Practice. 	4	4	8
III	<p>1. CHILD AND WOMENS HEALTH:</p> <ol style="list-style-type: none"> i. Health, fitness, and wellness issues during childhood and adolescence, Health, fitness, and wellness during adulthood. ii. Women's health issues: focus on pregnancy 	3	3	6

IV	<p>PREVENTION:</p> <p>i. Resources to optimize health and wellness, Health protection, Prevention practice for older adults.</p> <p>ii. Prevention practice for musculoskeletal conditions, cardiopulmonary conditions</p>	2	2	4
V	<p>PREVENTION:</p> <p>i. Prevention practice for neuromuscular conditions, integumentary disorders.</p> <p>ii. Prevention practice for individuals with developmental disabilities, Marketing health and wellness</p>	2	2	4

RECOMMENDED TEXT BOOK:

1. Roberta L. Duyff, “Academy of nutrition and dietetics complete food and nutrition guide”, 5th edition, Harvest Publisher, 2017.
2. Nicholas Bjorn “Fitness Nutrition”, 5th edition, Lulu Publisher, 2019.
3. Randall R. Cottrell, “Principles of Health Education and Promotion”, Jones & Bartlett Publishers, 8th Edition, 2021
4. James F. Mckenzie, Brad L. Neiger, “Health Promotion Programs”, Jones & Bartlett Publishers, 8th Edition, 2022

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CLINICAL TRAINING

Course code: U21BPTP646

Total: 125 hours

Course Description

The Student will learn the subjective and objective data taking procedure.

Course Objective

End of the course the students will able to

1. Understand the history taking procedure
2. Various procedures in patient's assessments
3. Learn the various treatment procedures

Sl. No	TOPIC	HOURS
1.	Demographic data Collection	
2.	Socioeconomic history collection	
3.	Social behavior and its influence on health	
4.	Schedule the patients treatment according to their condition	

SCHEME OF EXAMINATION

IA	FINAL EXAM	TOTAL
50	50	100

END SEMESTER EXAMINATION

Sl. No	Components	Marks
1	2 case presentation	25 × 2 = 50

Note: Each candidate has to document minimum 10 cases in the log book.

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SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE

(An Autonomous Institution)

(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
(Accredited by NBA-AICTE, New Delhi, Accredited by NAAC with "A" Grade)
Madagadipet, Puducherry - 605 107



COLLEGE OF PHYSIOTHERAPY

B.P.T. PROGRAMME

CASE ASSESSMENT

Name:

Date of Assessment:

Age:

Gender:

Occupation:

Address:

Phone No:

Hand dominance:

Presenting complaints:

History of presenting complaints:

Medical history:

Surgical history:

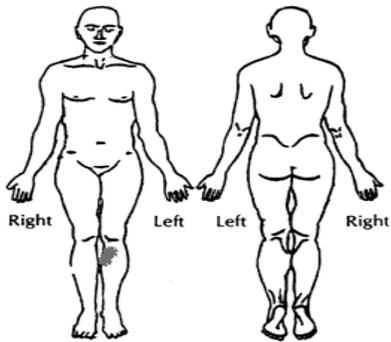
Social history:

Personal history:

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Pain assessment:



Site:

Side:

Duration:

Type:

Severity on VAS: _____

No pain

Max pain

Aggravating factors:

Relieving factors:

On observation:

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On palpation

On examination

Range of motion:

Active ROM:

Passive ROM:

R. clav — br — .

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Annexure - II

COLLEGE OF PHYSIOTHERAPY

Nov.'22 End Semester Examination Results of B.P.T.- II Semester Students A.Y. 2021 – 22.

Name of the Course: Anatomy	
Course Code: (U21BPTT207)	
Number of Students Appeared	94
Number of Students Absent	0
Number of Students Pass	87
Number of Students Fail	7
Name of the Course: Physiology	
Course Code: (U21BPTT208)	
Number of Students Appeared	94
Number of Students Absent	0
Number of Students Pass	76
Number of Students Fail	18
Name of the Course: Biomech and Kine - I	
Course Code: (U21BPTT209)	
Number of Students Appeared	94
Number of Students Absent	0
Number of Students Pass	93
Number of Students Fail	1
Name of the Course: Nutrition	
Course Code: (U21BPTT212)	
Number of Students Appeared	94
Number of Students Absent	0
Number of Students Pass	94
Number of Students Fail	0
Name of the Course: Environmental Studies	
Course Code: (U21BPTT213)	
Number of Students Appeared	94
Number of Students Absent	0
Number of Students Pass	94
Number of Students Fail	0

Pass%
92%

Pass%
80%

Pass%
99%

Pass%
100%

Pass%
100%

PAC
30/11/22

Dean i/c
30/11

Dea
Academics
30/11

Director Cum
Principal

R. Chandrasekaran

A.A. Arunvalagar