Program outcomes

No.	By the end of the program, the Occupational Therapy graduate will
PO1	Develop quality entry-level occupational therapists whose practice is guided by occupational science and clinical reasoning
PO2	Create life-long learners who will contribute to the body of knowledge of the profession
PO3	Foster student attitudes and professional behaviours consistent with the missions of the university, college, and program
PO4	Assist the student to develop the skills necessary to provide leadership roles in the profession and society
PO5	Foster an academic community in which its members participate actively in the development of self and society.

Course Outcomes and Mapping with Programme Outcomes

First year:

Course Code	Course Title
BOT01ANT	Human Anatomy
BOT01PHY	Human Physiology
BOT01BIO	Biochemistry
BOT01FOT1	FOT 1
BOT01FOT2	FOT 2

Second Year:

Course Code	Course Title
BOT02PHA	Pharmacology
BOT02PAM	Pathology& Microbiology
BOT02PSY	Psychology
BOT02ERGI	Ergo I
BOT02ERGII	Ergo II

Third year:

Course Code	Course Title
BOT03MED	Medicine
BOT03SOR	Surgery & orthopedics
BOT03PST	Psychiatry
BOT03WPE	Work physiology & Ergonomics
BOT03OTM	OT IN Medicine
BOT03OTS	OT In Surgery

Fourth Year:

Course Code	Course Title
Advances in OT	BOT04ADV
OT in Orthopedics condition	B0T04OTO
OT in neurological and Developmental condition	BOT04OTN
OT in Psychiatric condition	BOT04OTP
CBR and Rehabilitation	BOT04CBR
Biostatistic and Research methodology	BOT04BRM

First Year:

Course 1 (BOT01ANT)

CO	At the end of the course, the learner should be able to:	Mapped programme outcomes
BOT01ANT.1	Comprehend the normal disposition, inter-relationships, gross, functional and applied anatomy of the musculoskeletal system, locomotion, posture, gait and various organs in the body.	**PO1, PO2, PO4 & PO5**
BOT01ANT.2	Comprehend the basic structure and connections between the various parts of the central nervous system so as to analyze the integrative and regulative functions of the organs and systems. He/she should be able to locate the site of gross lesions according to the deficits encountered.	**PO1, PO2, PO4 & PO5**
BOT01ANT.3	Identify the microscopic structures of various tissues and organs in the human body and correlate the structure with the functions	**PO1, PO2, PO4 & PO5**
BOT01ANT.4	To understand the basic principles of embryology including genetic inheritance and stages involved in development of the organs and systems from the time of conceptions till birth.	**PO1, PO2, PO4 & PO5**
BOT01ANT.5	To study the basic principles of radiology and for comprehending deeper structures in the human body.	**PO1, PO2, PO4 & PO5**
BOT01ANT.6	Identify and locate all the structures of the body and mark the topography of the living anatomy.	**PO1, PO2, PO4 & PO5**
BOT01ANT.7	Understand principles of karyotyping and identify the gross congenital anomalies.	**PO1, PO2, PO4 & PO5**
BOT01ANT.8	Understand the principles of imaging techniques and interpretation of anatomical structures on plane radiographs of the body.	**PO1, PO2, PO4 & PO5**
BOT01ANT.9	From the integrated teaching of other basic sciences, students shall be able to comprehend the functions of the organs and systems in the body and thus interpret the anatomical basis of disease processes.	**PO1, PO2, PO4 & PO5**

Course 2 (BOT01PHY)

CO	At the end of the course, the learner should be able to:	Mapped programme outcomes
BOT01PHY.1	Know about the principles related to maintenance of body equilibrium and composition.	**PO1, PO2, PO4 & PO5**
BOT01PHY.2	understand the basic mechanism operating across the biological membrane	**PO1, PO2, PO4 & PO5**
BOT01PHY.3	understand the functional mechanisms of each organ system	**PO1, PO2, PO4 & PO5**
BOT01PHY.4	understand interaction and integration of different organ systems in health and diseases	**PO1, PO2, PO4 & PO5**
BOT01PHY.5	understand the influence of various environmental factors including personal stressors like exercise on the organ systems.	**PO1, PO2, PO4 & PO5**
BOT01PHY.6	To be able to perform the tests or techniques to evaluate the functions of organ systems and to be efficient to handle the equipment related to these tests.	**PO1, PO2, PO4 & PO5**
BOT01PHY.7	To be able to derive, analyse, interpret the test results and to differentiate the normal and abnormal test results.	**PO1, PO2, PO4 & PO5**
BOT01PHY.8	To be able to present the facts in a precise manner regarding knowledge and skill acquired.	**PO1, PO2, PO4 & PO5**

Course 3 (BOT01BIO)

CO	At the end of the course, the learner should be able to:	Mapped programme outcomes
BOT01BIO.1	To be able to describe Structure, functions of cell in brief.	**PO2, PO4, PO5**
BOT01BIO.2	To be able to describe Normal functions of different components of food	**PO2, PO4, PO5**
BOT01BIO.3	To be able to describe Basal metabolic rate and factors affecting BMR, with special reference to obesity.	**PO2, PO4, PO5**

BOT01BIO.4	To be able to describe Nutritional aspects of carbohydrates, lipids, proteins and vitamins.	**PO2, PO4, PO5**
BOT01BIO.5	To be able to describe The basic and clinical aspects of enzymology and regulation of enzymatic activity.	**PO2, PO4, PO5**
BOT01BIO.6	To be able to describe Biochemical aspects of muscle contraction.	**PO2, PO4, PO5**

Course 4 (BOT01FOT1)

CO	**At the end of the course, the learner should be able to:**	**Mapped programme outcomes**
BOT01FOT1.1	Assess joint range of motion of U.E. & L.E. on normal subject	**PO1,PO2,PO3,PO4,PO5**
BOT01FOT1.2	Assess group muscle strength of U.E. & L.E. on normal subject	**PO1,PO2,PO3,PO4,PO5**
BOT01FOT1.3	Analyse activities like Simulated eating, Finger ladder, Exercise cycle, exercise pulley, table top activities, Shoulder wheel, Medicine ball kicking.	**PO1,PO2,PO3,PO4,PO5**
BOT01FOT1.4	Learn the history of Occupational Therapy, Occupational Therapy practice framework, Therapeutic exercise and purposeful activities.	**PO1,PO2,PO3,PO4,PO5**

Course 5 (BOT01FOT2)

CO	**At the end of the course, the learner should be able to:**	**Mapped programme outcomes**
BOT01FOT2.1	Design paper models of splints: Finger gutter, Radial bar cock up, Dynamic outrigger, functional cock up, foot drop splint and Philadelphia collar splints.	**PO1,PO2,PO3,PO4,PO5**
BOT01FOT2.2	Identify and describe splints and adaptive devices used in occupational therapy practice.	**PO1,PO2,PO3,PO4,PO5**
BOT01FOT2.3	Analyse different components of jobs with sedentary to heavy work demands: Data entry operator, peon, security, nurse, canteen worker, car driver, gardening, ward-boy and construction worker.	**PO1,PO2,PO3,PO4,PO5**
BOT01FOT2.4	Learn basic concepts of human development, work, activities of daily living and	**PO1,PO2,PO3,PO4,PO5**

	different scales to assess them, principles of splinting and hand function activities.	

Second Year

Course 1 (BOT02PHA)

CO	At the end of the course, the learner should be able to:	Mapped Programme Outcomes
BOT02PHA.1	Describe Pharmacology effects of commonly used drugs by patients referred for Occupational Therapy.	**PO1,PO2,PO4,PO5**
BOT02PHA.2	Identify whether the pharmacological effects of the drug interference with Therapeutic response of Occupational Therapy & vice versa	**PO1,PO2,PO4,PO5**
BOT02PHA.3	Indicate the use of analgesics & anti-inflammatory agents with the movement disorders with consideration of cost efficiency & safety for individuals need.	**PO1,PO2,PO4,PO5**
BOT02PHA.4	Get the awareness of other essential & commonly used drug by patients, the basis for their use & common as well as serious adverse reaction.	**PO1,PO2,PO4,PO5**

Course 2 (BOT02PAM)

CO	At the end of the course, the learner should be able to:	Mapped Programme Outcomes
BOT02PAM.1	Acquire the knowledge of concepts of cell injury & changes produced thereby in different tissues & organs, capacity of the body in healing process.	**PO1,PO2,PO4,PO5**

BOT02PAM.2	Recall the etio-pathogenesis, the pathological effects & the clinicopathological correlation of common infections & non-infectious diseases	**PO1,PO2,PO4,PO5**
BOT02PAM.3	Acquire the knowledge of concepts of neoplasia with reference to the aetiology, gross & microscopic features, diagnosis & prognosis in different tissues & organs of the body.	**PO1,PO2,PO4,PO5**
BOT02PAM.4	Correlate normal & altered morphology of different organ systems in different diseases needed for understanding disease process & their clinical significance [with special emphasis to neuro- musculoskeletal & cardio-respiratory systems]	**PO1,PO2,PO4,PO5**
BOT02PAM.5	Acquire knowledge of common immunological disorders & their resultant effects on the human body.	**PO1,PO2,PO4,PO5**
BOT02PAM.6	Understand in brief, about the Haematological diseases & investigations necessary to diagnose them & determine their prognosis.	**PO1,PO2,PO4,PO5**
BOT02PAM.7	Describe the nomenclature and taxonomy in microbiology	**PO1,PO2,PO4,PO5**
BOT02PAM.8	Explain about hospital acquired infection, universal safety precautions and waste disposal	**PO1,PO2,PO4,PO5**
BOT02PAM.9	Describe the different infections caused by bacteria, virus and parasites	**PO1,PO2,PO4,PO5**

Course 3 (BOT02PSY)

CO	**At the end of the course, the learner should be able to:**	**Mapped Programme Outcomes**
BOT01PSY.1	Describe different aspects of attention, perception, emotion, stress, Motivation, thinking, language communication.	**PO1,PO2,PO4,PO5**

BOT01PSY.2	Explain theories of emotion, motivation, personality, memory & intelligence.	**PO1,PO2,PO4,PO5**
BOT01PSY.3	Comprehend developmental theories & explain the various facts of old age & issues of death & dying.	**PO1,PO2,PO4,PO5**
BOT01PSY.4	Describe meaning, classification & causal factors of abnormal behaviour	**PO1,PO2,PO4,PO5**
BOT01PSY.5	Understand mechanics of brain & carry out basic neuropsychological Experiment on sensory system, learning & retention, memory, perception, Emotion, motor behaviour and reaction time, motivation & rewards, attention.	**PO1,PO2,PO4,PO5**

Course 4 (BOT02ERG1)

CO	**At the end of the course, the learner should be able to:**	**Mapped Programme Outcomes**
BOT02ERG1.1	Describe and explain essential terms & concepts in biomechanics like kinetics and kinematics.	**PO1,PO2,PO3,PO4,PO5**
BOT02ERG1.2	Describe the biomechanics of the joints of the upper and lower extremities.	**PO1,PO2,PO3,PO4,PO5**
BOT02ERG1.3	Explain the anatomical aspects of posture, factors affecting posture, Normal and abnormal curvatures of spine, exercises for spine.	**PO1,PO2,PO3,PO4,PO5**
BOT02ERG1.4	Identify vicarious movements in various nerve injuries.	**PO1,PO2,PO3,PO4,PO5**
BOT02ERG1.5	Acquire the skill of assessment of range of motion of joints of U.E., L.E. & spine on patients.	**PO1,PO2,PO3,PO4,PO5**
BOT02ERG1.6	Acquire the skill of assessment of isolated muscle strength in U.E. & L.E., testing spinal muscle groups on patients	**PO1,PO2,PO3,PO4,PO5**
BOT02ERG1.7	Demonstrate types of crutch gait, identify & analyse pathological gait.	**PO1,PO2,PO3,PO4,PO5**

Course 5 (BOT02ERG2)

CO	**At the end of the course, the learner should be able to:**	**Mapped Programme Outcomes**
BOT02ERG2.1	Describe theoretical foundation of human development	**PO1,PO2,PO3,PO4,PO5**

BOT02ERG2.2	Describe the different treatment approaches and use them in treatment.	**PO1,PO2,PO3,PO4,PO5**
BOT02ERG2.3	Understand the role of play in Occupational therapy practice	**PO1,PO2,PO3,PO4,PO5**
BOT02ERG2.4	Design & fabricate common hand splints	**PO1,PO2,PO3,PO4,PO5**
BOT02ERG2.5	Design & fabricate common adaptive devices	**PO1,PO2,PO3,PO4,PO5**
BOT02ERG2.6	Demonstrate and implement standardized procedure of Hand function test	**PO1,PO2,PO3,PO4,PO5**

Third year:

Course 1 (BOT03MED)

CO	**At the end of the course, the learner should be able to:**	**Mapped programme outcomes**
BOT03MED.1	Describe Etiology, Pathophysiology, Signs, Symptoms and Management of the various Endocrinal, Metabolic, Geriatric & Nutrition Deficiency conditions	**PO1,PO2,PO4,PO5**
BOT03MED.2	Describe Etiology, Pathophysiology, Signs & Symptoms, Clinical Evaluation & Management of the various Rheumatological, Cardiovascular, Respiratory & neurological Conditions	**PO1,PO2,PO4,PO5**
BOT03MED.3	Acquire skill of clinical examination of Musculoskeletal, Pulmonary, Cardio-vascular & Neurological System	**PO1,PO2,PO4,PO5**
BOT03MED.4	interpret auscultation findings with special reference to pulmonary system, Chest X-ray, Blood gas analysis, P.F.T. findings, Blood test done for Neurological & Rheumatological Conditions	**PO1,PO2,PO4,PO5**
BOT03MED.5	Describe the principles of Management at the Medical Intensive Care Unit	**PO1,PO2,PO4,PO5**

Course 2 (BOT03SOR)

CO	At the end of the course, the learner should be able to:	Mapped programme outcomes
BOT03SOR.1	Describe the effects of surgical trauma and Anaesthesia	**PO1,PO2,PO4,PO5**
BOT03SOR.2	Classify, clinically evaluate & describe the general surgical management	**PO1,PO2,PO4,PO5**
BOT03SOR.3	Describe pre-operative evaluation, surgical indications & various surgical approaches & post-operative management in various abdominal, thoracic, peripheral vascular conditions and Plastic Surgery conditions	**PO1,PO2,PO4,PO5**
BOT03SOR.4	Recall the surgical approaches in the form of line diagram and describe the possible postoperative complications.	**PO1,PO2,PO4,PO5**
BOT03SOR.5	Read & interpret the salient features of the X-ray of the spine & Extremities and correlate the radiological findings with the clinical findings	**PO1,PO2,PO4,PO5**
BOT03SOR.5	Describe the management of metabolic and vascular disorders as well as overuse injuries.	**PO1,PO2,PO4,PO5**

Course 3 (BOT03PST)

CO	At the end of the course, the learner should be able to:	Mapped programme outcomes
BOT03PST.1	Explain purpose & types of classification of mental disorders.	**PO1,PO2,PO4,PO5**
BOT03PST.2	Demonstrate techniques of psychiatric assessment: mental status examination	**PO1,PO2,PO4,PO5**
BOT03PST.3	Describe the etiological factors, symptoms, management of psychiatric conditions	**PO1,PO2,PO4,PO5**
BOT03PST.4	Explain various treatment modalities and their indications	**PO1,PO2,PO4,PO5**

Course 4 (BOT03WPE)

CO	At the end of the course, the learner should be able to:	Mapped programme outcomes
BOT03WPE.1	Explain the nature of aerobic & anaerobic processes.	**PO2,PO4,PO5**
BOT03WPE.2	Describe principles & methods of physical training and explain the concepts of energy expenditure at work, rest, leisure & fatigue.	**PO2,PO4,PO5**
BOT03WPE.3	Explain the mechanism of temperature regulation and describe factors which affect physical performance.	**PO2,PO4,PO5**
BOT03WPE.4	Understand the functioning of man- machine system and explain the safety factors, accidents, and their prevention.	**PO2,PO4,PO5**
BOT03WPE.5	Describe concept of cognitive workload and organization of mental space.	**PO2,PO4,PO5**
BOT03WPE.6	Understand the fundamental philosophy of time & motion.	**PO2,PO4,PO5**
BOT03WPE.7	Apply the principles of ergonomics in occupational therapy	**PO2,PO4,PO5**

Course 5 (BOT03OTM)

CO	At the end of the course, the learner should be able to:	Mapped programme outcomes
BOT03OTM.1	Assessment of motor performance- functional mobility, strength, and endurance of the patients	**PO1,PO2,PO3,PO4,PO5**
BOT03OTM.2	Assessment of functional performance capacity to perform occupational activities including work, leisure, and self-care.	**PO1,PO2,PO3,PO4,PO5**
BOT03OTM.3	Assessment using standardized tools, goal planning, execution of therapy, goal modification	**PO1,PO2,PO3,PO4,PO5**
BOT03OTM.4	Assessment for discharge planning, patient and care giver education on home exercises, maintenance and safety issues.	**PO1,PO2,PO3,PO4,PO5**
BOT03OTM.5	Prescription, Designing and Fabrication of splints and adaptive device	**PO1,PO2,PO3,PO4,PO5**

Course 6 (BOT03OTS)

CO	At the end of the course, the learner should be able to:	Mapped programme outcomes
BOT03OTS.1	Assessment of motor performance- functional mobility, strength, and endurance of the patients	**PO1,PO2,PO3,PO4,PO5**
BOT03OTS.2	Assessment of functional performance capacity to perform occupational activities including work, leisure, and self-care.	**PO1,PO2,PO3,PO4,PO5**
BOT03OTS.3	Assessment using standardized tools, goal planning, execution of therapy, goal modification	**PO1,PO2,PO3,PO4,PO5**
BOT03OTS.4	Assessment for discharge planning, patient and care giver education on home exercises, maintenance and safety issues.	**PO1,PO2,PO3,PO4,PO5**
BOT03OTS.5	Prescription, Designing and Fabrication of splints and adaptive device	**PO1,PO2,PO3,PO4,PO5**

Fourth Year:

Course 1 (BOT04ADV)

CO	At the end of the course, the learner should be able to:	Mapped programme outcomes
BOT04ADV.1	Code of ethics essential while practicing occupational therapy in India as well as abroad.	**PO1,PO2,PO3,PO4,PO5**
BOT04ADV.2	Introduction to service management strategies like management styles, objectives, organizational pattern and setting up an OT department.	**PO1,PO2,PO3,PO4,PO5**
BOT04ADV.3	Understanding the terms: Quality assurance, fiscal management	**PO1,PO2,PO3,PO4,PO5**
BOT04ADV.4	Occupational therapy role in Industrial rehabilitation, hospital-based practice, home care delivery system and private practice.	**PO1,PO2,PO3,PO4,PO5**
BOT04ADV.5	. Overview of different adjunctive techniques used in Occupational therapy practice: Acupressure, Aquatic therapy, Biofeedback, Kinesiotaping, Myofascial release technique, Yoga, Tai chi, physical agent modalities, prosthesis and orthosis, assistive technologies and virtual reality.	**PO1,PO2,PO3,PO4,PO5**

Course 2 (BOT04OTO)

CO	At the end of the course, the learner should be able to:	Mapped programme outcomes
BOT04OTO.1	Demonstrate appropriate evaluation procedures and principles of treatment for patients with orthopedic conditions	**PO1,PO2,PO3,PO4,PO5**
BOT04OTO.2	Describe and demonstrate practices used in assessment and treatment planning of upper limb and lower limb fractures, injuries and infections	**PO1,PO2,PO3,PO4,PO5**
BOT04OTO.3	Understand the principles and goals of treatment in Erb's palsy, brachial plexus injury and peripheral nerve injuries and spinal cord injuries	**PO1,PO2,PO3,PO4,PO5**
BOT04OTO.4	Have a brief knowledge about reconstructive surgeries in polio and cerebral palsy and occupational therapy management after surgeries.	**PO1,PO2,PO3,PO4,PO5**

BOT04OTO.5	Cumulative trauma diseases and application of ergonomic principles in such conditions	**PO1,PO2,PO3,PO4,PO5**

Course 3 (BOT04OTN)

CO	**At the end of the course, the learner should be able to:**	**Mapped programme outcomes**
BOT04OTN.1	Neurophysiological principles applied to occupational therapy procedures in the treatment of pyramidal, extrapyramidal, cerebellar and lower motor neuron lesions.	**PO1,PO2,PO3,PO4,PO5**
BOT04OTN.2	Evaluation of cognitomotor perceptual skills	**PO1,PO2,PO3,PO4,PO5**
BOT04OTN.3	Classification, etiology and Occupational therapy management in common paediatric conditions such as cerebral palsy, common genetic disorders such as neural tube defects and infective conditions of brain such as meningitis, encephalitis, cerebral malaria.	**PO1,PO2,PO3,PO4,PO5**
BOT04OTN.4	Preventive, curative and rehabilitative occupational therapy approaches in common neurological conditions such as stroke, traumatic brain injury, brain tumors etc.	**PO1,PO2,PO3,PO4,PO5**

Course 4 (BOT04OTP)

CO	At the end of the course, the learner should be able to:	Mapped programme outcomes
BOT04OTP.1	Describe the frames of references used in mental health with reference to occupational therapy.	**PO1,PO2,PO3,PO4,PO5**
BOT04OTP.2	Enumerate and select appropriate assessment tools used in treating patients with mental health issues	**PO1,PO2,PO3,PO4,PO5**
BOT04OTP.3	Analyze jobs & activities and prescribe activities for psychiatric patients.	**PO1,PO2,PO3,PO4,PO5**
BOT04OTP.4	Describe various types of therapeutic media and their application in psychiatric occupational therapy such as behavior therapy, projective techniques, industrial activities, social skills training, etc.	**PO1,PO2,PO3,PO4,PO5**
BOT04OTP.5	Describe and demonstrate current practices used in assessment; treatment planning and implementation, in acute care and long-term management of schizophrenic disorders, mood disorders, dementia, generalized anxiety disorders, etc.	**PO1,PO2,PO3,PO4,PO5**
BOT04OTP.6	Outline the role of occupational therapy as a team member in various psychiatric setups such as community-care, half way homes, day care centers, sheltered workshops, etc.	**PO1,PO2,PO3,PO4,PO5**

Course 5 (BOT04CBR)

CO	At the end of the course, the learner should be able to:	Mapped programme outcomes
BOT04CBR.1	Concepts of community-based rehabilitation and community medicine, health &diseases, dimensions of health and sociology & cultural factors in health & disease.	**PO1,PO2,PO3,PO4,PO5**
BOT04CBR.2	Occupational health and understand the role of OT in occupational disorders like occupational lung disease.	**PO1,PO2,PO3,PO4,PO5**
BOT04CBR.3	Role of CHILD SURVIVAL AND SAFE MOTHERHOOD PROGRAM as a national program.	**PO1,PO2,PO3,PO4,PO5**
BOT04CBR.4	NUTRITION & HEALTH: Describe constituents of food, their functions & national nutritional programs.	**PO1,PO2,PO3,PO4,PO5**

BOT04CBR.5	Key terms such as anthropology, ethnography, skill transfer, knowledge, attitude and community education, appropriate technology and multi-purpose health worker and Health Care Delivery System	**PO1,PO2,PO3,PO4,PO5**
BOT04CBR.6	International Classification of disability, magnitude of disability.	**PO1,PO2,PO3,PO4,PO5**
BOT04CBR.7	Low-cost aids, role of rehabilitation members.	**PO1,PO2,PO3,PO4,PO5**

Course 6 (BOT04BRM)

CO	**At the end of the course, the learner should be able to:**	**Mapped programme outcomes**
BOT04BRM.1	Understand advantages of reviewing literature, sources & methods of research, distinguish types of studies, understand strategies to eliminate errors/bias selection of sample, enumerate details needed for writing protocol, know contents of research protocol.	**PO2,PO4,PO5**
BOT04BRM.2	Understand what are biomedical ethics, informed consent, functioning of ethical Committees, describe how to collect data & present it define & explain common statistical terms.	**PO2,PO4,PO5**
BOT04BRM.3	Explain the calculations of mean median, with average & percentile calculation, explain & describe impertinent of finding standard deviation, Quartile derivation, variables & calculate them, describe the meaning of normal distribution & normal curves, describe various sampling methods their application.	**PO2,PO4,PO5**
BOT04BRM.4	Explain various sampling variability & significance of different sampling, define term probability explain various theorems & various methods, hypothesis in their calculation.	**PO2,PO4,PO5**
BOT04BRM.5	Describe significance of calculations & recording difference in mean values.	**PO2,PO4,PO5**