SHRI VINOBA BHAVE ALLIED HEALTH INSTITUTE, SILVASSA

U.T. of Dadra & Nagar Haveli and Daman & Diu

BACHELOR OF OCCUPATIONAL THERAPY

(BOT)

Curriculum

For the academic year 2022-23

Affiliation by Veer Narmad South Gujarat University Veer Narmad South Gujarat University, Udhana - Magdalla Rd, Surat, Gujarat 395007

DETAILS ABOUT THE INSTITUE OF ALLIED HEALTH SCIENCES ADMISSIONPROCESS:

ADMISSION REQUIREMENTS

- Both Male & Female candidates of Indian origin are eligible.
- The minimum age of admission shall be 17 years and the maximumage limit shall be35 years on 31st December of the year in which admission is sought.
- Candidate shall be medically fit.
- Married candidates are also eligible for admission.
- Students shall be admitted once in a year.
- Candidate should appear for the computer-based entrance testconducted by thecompetent authority.

Minimum Educational Qualification:

- Candidates who have passed the qualifying 12th standard examination (10+2) with Scienceand must have obtained a minimum of 45% for General and 40% for SC, ST and OBC category marks in Physics, Chemistry and Biology taken together and passed in English individually.
- Candidates are also eligible from State, Open School recognized by State Government and National Institute of Open School (NIOS) recognized by Central Government having Science subjects and English only.
- English is a compulsory subject in 10+2 for being eligible for admission to Allied Health Sciences.

RESERVATION OF SEATS:

The Percentage of Seats shall be reserved for the candidates who are Domicileof Dadra & Nagar Haveli and Daman & Diu falling under the following categories as under:-

Sr. No.	Name of Reserved Category	Daman & Diu	Dadra & Nagar Haveli
1	Scheduled Castes	15.00%	2.00%
2	Scheduled Tribes	7.50%	43.00%
3	Other Backward Classes	27.00%	5%
4	Economically Weaker Section	10%	10%

(i) A candidate seeking admission on reserved seat shall be required to produce a Certificate of inclusion in the concerned category, provided that the candidate belonging to Other Backward Classes shall be required to produce a certificate to the effect of non- inclusion in Creamy Layer in addition to the caste certificate from competent authority.

(ii) No caste certificate shall be valid unless it is duly stamped, signed and issued bythe authority empowered by the U.T. Administration of Dadra & Nagar Haveli and Daman & Diu as the case maybe.

(iii) No certificate to the effect of non-inclusion in Creamy Layer shall be valid, unlessit is duly stamped, signed and issued by the authority empowered by the U.T. Administration of Dadra & Nagar Haveli and Daman & Diu as the case may be. Such certificates should have validity as per prevailing Rules & Regulations of UTs.

(iv) If a candidate fails to submit the certificates as required by Rule and Regulation within the stipulated time, his/her candidature shall be considered for admissionunder unreserved category.

(v) If a candidate of reserved category gets admission on unreserved seat on meritbasis in common / unreserved category, he/she may be given admission on the unreserved seat according to his/her preference.

(vi) The admission of a candidate of a reserved category on a reserved seat shall be valid subject to the verification of caste certificate issued to him/her by the authority empowered by U.T. Administration of Dadra & Nagar Haveli and Daman & Diu in this behalf. In case the caste certificate is found to be invalid on verification, he/she shall not have right to claim his/her admission on reserved seat and if he/she has already been granted admission, such admission shall be cancelled. Admission of such candidate may be continued in case of availability of vacant unreserved seats, subject to the condition of eligibility of merit.

(vii) After granting admission to all the candidates of reserved categories on respective reserved seats, the reserved category seats remaining vacant shall be transferred to the unreserved category seats.

(viii) If sufficient number of candidates is not available to fill up the seats reserved for SC, the same seats will be filled-up by ST candidates. Similarly, if the sufficient number of candidates is not available to fill-up the seats reserved for ST, the same seats will be filled-up by SC candidates. Thereafter, in case of non-availability of suitable candidates of SC / ST, the same seats will be filled-up from merit list of General category. Similarly, if sufficient candidates are not available to fill the seats reserved for OBC, then said seats will be filled in by merit list of General Category.

Reservation for ST/SC/OBC Candidates

(i) The Reserved Policy for ST/SC/OBC as decided by the U.T. Administration of

Dadra & Nagar Haveli and Daman & Diu shall be eligible for their claim on the reserved seats as per Reservation Roster prepared by the Administration.

(ii) Reserved Category applicants who are migrants to this Union Territory of Dadra & Nagar Haveli and Daman & Diu shall not be eligible for their claim on the seats reserved for ST/SC/OBC.

(iii) The pattern of the Reservation for Dadra & Nagar Haveli as mentioned in Reservation Roster is as per the Regional Reservation policy followed in the U.T. of Dadra& Nagar Haveli and Daman & Diu. The above reservation will be given as per the Roster prepared by this U.T. Administration.

(iv) A Non-creamy layer certificate, in case of the applicant belonging to OBC category, issued by the competent authority of Dadra and Nagar Haveli and Daman& Diu, as the case may be after 31st March 2022.

Reservation seats for Physically Disabled Candidates:

Five percent of total seats shall be reserved for Physically Disabled Candidates, in accordance with the provisions of the Persons with Disabilities (THE RIGHTS OF PERSONS WITH DISABILITIES) ACT, 2016. A candidate with disability shall have to submit certificate of disability issued and duly signed by the Civil Surgeon.
(Explanation- "person with disability" means a person suffering from not less than forty percent of any disability as certified by a competent medical authority.)

Reservation for Economically Weaker Section

i. Ten percent of total seats shall be reserved for Students belonging to Economically Weaker Section for admission to paramedical course.

ii. A candidate claiming admission against Economically Weaker Section Students category shall require to submit documentary evidence from competent Authority of Dadra and Nagar Haveli and Daman& Diu, as the case may be after 31st March 2022.

ADMISSION PROCEDURE

Online application form and Prospectus will be available from __/__/2022 to __/__/2022 in the official websites of DNH & DD (www.ybch.dnh.nic.in , www.dnh.gov.in and www.daman.nic.in)

DOCUMENTS REQUIRED FOR FILLING THE ONLINE APPLICATIONFORM

Scanned documents to be uploaded along with the application form.

a. Matriculation mark sheet and Passing Certificate of high school which

mentioning the date of birth.

b. Mark sheet and passing certificate of (10+2) or an equivalent 12 years schooling froma recognized board or University

c. Recent color passport size photograph of the applicant.

d. Signature of the applicant

e. Domicile certificate obtained from the Mamlatdar of DNH & DD.

f. The dependent certificate for the guardianship issued by the Mamlatdar of DNH andDD forclaiming the guardianship of the applicant/candidate.

g. Caste certificate obtained from the Mamlatdar of DNH & DD.

h. Non creamy layer certificate for OBC candidate obtained during the current Financial Yearafter (1st April 2022) from the Mamlatdar of DNH & DD.

i. Disability certificate for physically handicapped candidates (obtained from a duly constituted and authorized Medical Board of the State or Central Govt. Hospitals / Institutions.)

j. Certificate from the head of educational institute (s) stating five (5) years of study period (8th to 12th standard) to be eligible for first priority and three (3) years , undertaken in any recognized School in DNH & DD.

k. Candidates from EWS Quota should have recent EWS Certificate sanctioned from theMamlatdar of DNH & DD after_March 2022.

INSTRUCTIONS FOR FILLING THE ONLINE APPLICATION FORM

- Before applying, candidates are advised to go through the admission instructions given there in the website carefully and then fill in the online application form and upload the required documents mentioned in the application form.
- Candidates may also call the helpline number **104** for any queries related to the filling of application form.
- Applications will be accepted only through **online mode.** The last date for receiving onlineapplication is **/ /2022.**
- ***Last Date for Online Application:__/__/2022***
- Institute will not be responsible for any delay in the online applications uploaded by the candidates. Therefore, candidates are advised to submit their application on time.
- If a candidate is found to have furnished false information or certificate or to have concealed some information in his/her application, his/her candidature for admission stands cancelled.

- Incomplete or unsigned applications will be summarily rejected and those applications will not be entertained and no correspondence will be made in this regard.
- ***No request shall be entertained for change in category (General, EWS, SC, ST, and OBC) after the submission of online application.***

COMPUTER BASED ENTRANCE TEST (PROCEDURE FOR SELECTION OFCANDIDATES):

1. The seats will be filled strictly based on the merit list on the basis of marks secured in thecomputer-based entrance test and according to the priority.
2. The computer- based entrance test will be held at specified centers of: **Silvassa, Daman, Diu, Surat and Vapi.**
3. List of the candidates and their computer-based entrance test center"s will be displayed on the department websites five days before the scheduled date of computer-based entrance test.
4. Admit Card for the computer-based entrance test can be downloaded from the website five days before the scheduled date of computer-based entrance test by using login id and password.
5. No assistance will be given to the candidates on the day of computer-based entrance test.
6. Students who do not know how to / who wants to practice computer-based entrance test may take up a mock test which will be available in the department"s web sites. The students need to use their login id and password for writing mock test.

SCHEME OF COMPUTER BASED ENTRANCE TEST

(a) The Scheme of computer-based entrance test is as under: One paper of two (02) hours duration and consisting of five parts containing objective type (Multiple Choice) questionsin the following subjects:

Part	Subject	Marks
A	Physics	20
B	Chemistry	20
C	Biology	20
D	General Knowledge	20
E	English	20
TOTAL		**100**

(b) The general standards of computer-based entrance test will be based on 11

and 12th that is 80% of questions related to PCBE subjects and 20% of General knowledge.

SELECTION CRITERIA:

- Both Male and Female candidates should be of Indian origin.
- The minimum age for admission shall be 17 years on 31st December of the year in which admission is sought. The maximum age limit for admission shall be 35 years.
- Admission of the candidate is purely based on the merit list on the basis of computer- based entrance test and priority. Minimum qualifying marks for entrance test shall be 50th percentile for General, 45th Percentile for General EWS, 40th Percentile for SC/ST/OBC.
- The candidate must be medically fit except those who have applied under physically handicapped category and must submit a medical fitness at the time of admission.

MODE OF SELECTION

1. The counseling committee comprising of:
   a. Principal, Shri Vinoba Bhave Institute of Allied Health Sciences, Silvassa
   b. Principal, Institute of Paramedical Science, Daman
   c. Associate Professor, Shri Vinoba Bhave Institute of Allied Health Sciences, Silvassa
   d. Assistant Professor, Shri Vinoba Bhave Institute of Allied Health Sciences, Silvassa
   e. Assistant, DMHS, DNH and DD
   f. Mamlatdar, DNH and DD
2. Merit list shall be prepared on the basis Computer Based Entrance Test marks and as per priority and category mentioned above.
3. All the applications will be considered in the general category in the first instance. In case the applicant fails to get admission in the general category, h i s / her application will be considered in the reservation category (SC/ ST/ OBC/EWS/PH) for which he/she has applied.
4. In case of two or more candidates obtain equal marks in the Computer Based Entrance Test, their merit will be determined in order of preference as under:

i. Candidates obtaining higher marks in the subjects Physics, Chemistry,

Biology(PCB) of 10 +2 standard board examination or any equivalent examinations shall beplaced higher for merit, falling which,

ii. Candidates obtaining higher marks in the subject Biology of 10+2 or equivalent examinations, falling which,

iii. Candidates obtaining higher marks in the subject Physics of 10+2 or equivalent examinations, falling which,

iv. Candidates obtaining higher marks in the subject Chemistry of 10+2 or equivalent examinations, falling which,

(Note: The above mentioned 10+2 standards board examination in the above para (i) to

(iv) states that for CBSE/ ICSE applicants, it is the marks obtained in the final year examination while for GHSE applicants, the aggregate of the marks obtained in the 3rd and 4th semesters will be considered.)

v. Candidate obtaining higher percentage of marks (aggregate) in standard X (SSCE), falling which,

vi. Candidate who are older in age.

(Note: Incase the applicant appears for these subjects in second attempt and clears, then the marks secured in the second attempt only will be considered.

- Any attempt on the part of candidate to influence the department directly or indirectly will be treated as unfair means resulting in disqualification of candidature.
- In case of any dispute, the same shall be settled within the jurisdiction of DNH and DD.
- No individual intimation will be sent to the non-selected candidates.

ALLOCATION OFSEATS

The roster points from 1 - 10 for each course is done for Dadra & Nagar Haveli and Daman &Diu

50% seats are allocated to DNH and 50% seats are allocated to Daman & Diu

As per the Reservation Roster Points :-

Course	Dadra and Nagar Haveli						Daman					
	ST	SC	OBC	EWS	General	Total	ST	SC	OBC	EWS	General	Total
Bachelor of Physiotherapy	03	00	00	01	06	10	00	00	02	01	07	10
Bachelor of Occupational Therapy	03	00	00	01	06	10	00	00	02	01	07	10
Bachelor of Medical Radiography and Imaging Technology	03	00	00	01	06	10	00	00	02	01	07	10

CERTIFICATE VERIFICATION ANDCOUNSELING DETAILS

Certificate verification

- List of the provisionally eligible candidates will be displayed on department websites and institutions notice board.
- Each candidate is responsible to see the provisional selection list put up on the institutions notice board and departmental websites.
- The provisionally selected candidate has to appear with all the original documents at the time of certificate verification. If the candidate fails to submit/ bring original documents during certificate verification, their candidature stands cancelled.

Waiting List

- It is the list of candidates who will be selected based on the availability of vacant seat(s).The list will be prepared and will be displayed on department"s websites and institutions notice board. The candidate has to attend the counseling and report the Institute officeon the date and time mentioned.

INSTRUCTIONS FOR PROVISIONAL SELECTED CANDIDATES

The date and time for the provisional selected candidates to report to the institute office will be intimated once counseling process gets completed. The candidate and their parent/guardian need to report to the institute office during office time (9 am – 5 pm) and pay the fees and submit their original documents, failing which his/her selection will be treated as cancelled and seat will be offered to the next candidate on the waiting list.

INSTRUCTIONS FOR JOINING THE COURSE

- The period of training is strictly full time and ordinarily continuous.

The date of joining the Institute will be intimated once counselling process is completed. The provisionally selected candidates must join their respective Institute on the said date. No extension in joining shall be granted. **The selection of those candidates who fail to join by the stipulated date shall automatically stand cancelled and no correspondence shall be entertained.** The institutes take no responsibility of intimating for cancellation of seats.

- **Medical Examination**
  - Medical fitness will be pre-condition for admission for all candidates.
  - The candidates who claimed to be medically fit will be also medically examined by aMedical Board, constituted by the Institutes to determine their medical fitness.
  - ***Candidates with 40% -50% of lower extremity disability:***

i. A disability certificate duly constituted and authorized by the Medical Board of the State or Central Govt. Hospitals / Institutions need to be uploaded along with the online application form and has to be produced before the Certificate Verification Committee.

ii. The candidate should also appear before an Institutional Medical Board and obtain avalid Disability Certificate prior to admission.

iii. The suitability of the candidate against his/her disability will be assessed against the patient safety norms for due certification by the InstitutionalMedical Board.

iv. The decision of the Institutional Medical Board is final in this regard.

- *The admission is provisional, subject to the approval by Veer Narmad South Gujarat University, Surat.*
- **The selected candidates will have to submit the following Original documents/ certificates:-**

a. Matriculation mark sheet and passing certificate of high school.

b. Mark sheet and passing certificate of (10+2) or an equivalent 12 years schooling from a recognized board or University.

c. Recent Color Passport Size Photograph with the name printed at the foot end (10)

d. Transfer Certificate / Institute Leaving certificate

e. Migration Certificate for students who are not from Gujarat Education Board

f. Caste Certificate

g. Recent Non-Creamy Layer Certificate for OBC candidates

h. Domicile Certificate

i. The dependent certificate for the guardianship issued by the Mamlatdar, of DNH and DD for the applications claiming the guardianship of the applicant/candidate.

j. EWS Certificate (If Applicable)

k. Photo identity proof. (Aadhar Card)

l. Medical Certificate (Annexure 1)

m. Disability Certificate (if applicable)

n. Candidates Bank Account Details

o. Certificate from the head of educational institution/s stating five (5) years of study period (8^{th} to 12^{th} standard) to be eligible for first priority, undertaken in any recognized school in DNH andDD.

p. The candidates as well as their parent at the time of admission of the students to the Institutes will be required to furnish an undertaking in the form of an affidavit that the candidate will not indulge in any form of ragging and will not participate in any kind of misconduct with fellow students. The students and the parent also need to submit an undertaking that they will not indulge in any form of misconduct with teachers and other staff of Institute and Hospital during their entire period of training.

RULES AND REGULATIONS TO BE OBSERVED IN THE INSTITUTE

Shri Vinoba Bhave Institute of Allied Health Sciences prepares its graduates to become exemplary citizens by adhering to codeof ethics and professional conduct at all times in fulfilling personal and professional obligations.

1. Every student admitted to the allied health science course shall have to follow rules and regulations.
2. Students are accountable for their behavior to the authorities in institute, clinicalposting and co-curricular activities.
3. All the disciplinary decisions taken by the management will be final.
4. Students must assemble in the Institute campus for the prayer sharp at 8.45 am everyday.
5. Students are required to be regular and punctual for the class. Students are expected to be in the class at least 5 minutes before the commencement of the period.
6. Students should maintain perfect order and strict silence inside the lecture hall.
7. Movement outside the class room in between lectures should be minimum and for validreasons only.
8. Loitering around the corridors during classes and attending other classes are not allowed.
9. Students should maintain silence in the class, clinicals, library, reading room and in the corridors. Students should make every effort to take care of the Institute and hospital property and help in maintaining the same. They should not write on the white board, smartboard, scribble on tables, chairs, walls etc.
10. Students are not allowed to come directly to the principal office without permission of the class coordinator, until there is any emergency.
11. If the students have any problem, they should inform the class representative and the class representative will intimate it to the class coordinators and if not resolved by class coordinator, coordinator will intimate to the principal. The students should not by-pass the above-mentioned channel. In case of urgent/serious issues the exception is accepted.
12. A student is not allowed to receive gift or gratuity of any sort at any time from the patient or their relatives.
13. Students are required to maintain ethical and professional behavioral standards in both inside and outside the Institute, hospital and community premises.
14. Each student is responsible for the proper handling and safe custody of any apparatus or equipment that he/she may be using in different labs, clinicals or classroom. Misuse or negligence will result in replacement of the particular item by the candidate. Any willful damage done to the property of the Institute or hospital will be treated as breach of discipline.
15. Students are not allowed to paste notices within the institution"s premises without any priorwritten permission from the Office of the Principal.
16. Students are forbidden to communicate without professional reason with any person outside the authority without permission from the Office of the Principal.
17. Any student who damages the reputation of the Institute in any way is liable to be expelled.If any student discontinues the course, he/she shall clear all dues before leaving the Institute. If he/ she fail to clear the dues, his/her original certificates will

be retained and will be returned once the dues are cleared by the student.

18. Violating the rules will be dealt seriously. If necessary, the required action will be taken by the authorities, depending upon the seriousness of the violation of rules extending to dismissal from the institute.
19. The Institute provides transport facilities for student"s field work but whenever this is not feasible, they have to use public transport at their own expenses.
20. When students are posted outside DNH and DD for field experience / field work, expensesshall be borne by the students.
21. Rules are subject to change.

DRESS CODE:

The students are expected to attend Institute well-dressed on all working days

1. Student has to wear separate uniform for clinical and classes as approved by the institute.
2. Hair must be put up neatly. Jewels, ear rings, painted fingernails, threads and bracelets on hands etc. are not allowed. Students must be neat and tidy at all times.
3. Students are required to carry their identity cards during Institute hours, clinical and whenever they are going out and must produce whenever it is asked by the concerned authority.
4. Students are encouraged to wear simple and decent dress suitable for an academic environment during the co - curricular activities.

ATTENDANCE REQUIREMENTS:

1. Regular and punctual attendance in all class activities likes lectures, demonstrations, and practical, clinical teaching, tests etc. is compulsory. Regular Institute time is 9:00 am -5:00 pm. Students should participate in all Institute activities like clinical meetings, conferences, guest lectures, seminars as well as sports and cultural activities etc.
2. A candidate must have 100% attendance in each of the practical areas before the completion of the course.
3. As per the VNSGU Surat, regulations, no student shall be allowed to appear in the annual examination of the concerned subject if his/her theory and practical attendance is less than 80% of the total sessions.
4. Permission for leave or absence from the classes must be taken from the class teacher andPrincipal.
5. In case of illness, permission shall have to be obtained from the Principal to remain absentfrom studies.
6. The students should not be absent / take leave without prior permission from the Class teacher and Principal. Any unauthorized absenteeism will be viewed seriously and liable for disciplinary action.
7. If the student is unable to return on time after vacation due to illness, it is mandatory to submit the valid Medical Certificate.

8. If a student is in need to leave the Institute or hospital in the middle of a day, for any emergency, he/she should get it sanctioned from the class teacher and principal, and a letter to that effect must be produced from the parent or guardian.

ACADEMIC STANDARDS

1. Students should attend all tests and show good academic progress.
2. Regularity in writing tests and satisfactory performance of students in tests are essential for permitting the students to appear for the university examination atthe end of the academics.
3. Besides the curricular activities, the students are expected to participate in all extracurricular activities such as sports and cultural events.

DISCIPLINE OF THE STUDENTS

1. Identity Card is mandatory during Institute and Clinical timings.
2. Rules and regulation in relation to students" discipline will be enforcedeffectively tomaintain discipline and to keep up the decorum of the Institute.
3. Students should abide by the rules and regulations of the Institute and Hospital strictly.
4. Ragging or any other form of indiscipline will invite strict disciplinary action from the authorities.
5. For any kind of misbehavior by a student or group of students with staff or creating disturbances in classroom / Institute premises, strict disciplinary action will be taken. A student expelled on disciplinary grounds will not be readmitted to this Institute.
6. The use of mobile phones in Institute and hospital premises is strictly prohibited.
7. If any student found using liquor or narcotics on hospital duty, Institute or in institute premises, he/she will be suspended from the institute for a specific periodor be expelled from the institution.
8. Possession of weapons, explosive and other objectionable material in institute will result in being expelled from the institution. Breakage of the articles in the laboratory will be replaced by the student if it is due to his/her negligence.
9. Taking active part in politics will result in being expelled from the institution.
10. Student reporting for hospital duty or entering the institute premises in a scruffy appearance is liable for disciplinary action.
11. Ragging is a criminal offense and is strictly prohibited in the Institute premises. Anystudent/students involved in such activities will be immediately expelled from the institution. Both junior and senior students are required to maintain cordial relationship with each other and a disciplined atmosphere in the Institute campus.
12. Students shall be answerable for bringing any friends/relatives etc. to the Institute during regular classes, functions etc. without the permission of the concerned authorities.

FIRST B.O.Th.

Subject code	Subjects
BOT I/01/A	Human Anatomy
BOT I/02/B	Human Physiology
BOT I/03/C	Biochemistry
BOT I/04/D	Fundamentals of Occupational Therapy
BOT I/05/E	Occupational Therapy Diagnostics – I

SyllRev I

OBJECTIVES OF THE COURSE

DIDACTIC LEARNING: COGNITO-PERCEPTUAL OBJECTIVES:

Following the first year of the course student will demonstrate knowledge of:

- Normal functioning of human tissues, organs and systems, basic anatomy and physiology towards measurement of components related to normal human function.
- Tissue structure and function related to organ systems, to allow applications in normal and abnormal conditions of function in future.
- Homeostasis of body, abnormal functioning of organs and organ systems for future clinical applications.
- Functional anatomy of body and body systems and its relation to movements, pathological conditions and their relationship to Occupational Therapy performance deficits in physical domains.
- Bio-chemistry related to organ systems in normal and abnormal conditions. Introduces student to knowledge of chemistry & metabolism of macromolecules, lipids, blood sugar levels, HMP pathways and processes related to human nutrition, energy liberation during exercises and activity performance.
- Prepares student for identifying signs and symptoms, using Occupational Therapy tools in diagnosis of functional limitations and in performance components.

Field work- I: COGNITO-PERCEPTUAL-MOTOR SKILLS.

OFFERS OPPORTUNITY TO-

- *Observe signs* and symptoms and treatment interventions.
- Develop effective communication skills with clients and professionals.
- Use of charts and records of clients to obtain information relevant for learning.
- Introduce reflective writing related to- case records, laboratory observations.
- Allow development of professional behavior and skills.
- Understand core concepts in clinical practice for future applications through clinical interviews, screening, evaluation and assessment of clients in sub acute, out-patient and community set-ups.

SYLLABUS

Total Transcript Hours – 1400

Subject code. BOT	First Year B. O. Th. Subjects	Didactic (Theory Class) Hours	Practical/ Practicum/ Labs/ Reflective writing Hours	Total Hours
BOT I/01. A	Human Anatomy	175	60	235
BOT I/02. B	Human Physiology	155	80	235
BOT I/03 C	Biochemistry	46	04	050
BOT I/04. D	Fundamentals of Occupational Therapy	140	210	350
BOT I/05. E	Occupational Therapy Diagnostics- I	140	200	340
	Supervised Clinical Field Work	-	-	190
	Total hours			1400

Syll Rev I

BOT I/01/A: HUMAN ANATOMY

Didactic-175 hours +Practicals-60 hours = 235 Total hours.

Course Description: Provides the students with the knowledge of functional structure of the human body. It also provides anatomical knowledge of bodily systems as a prerequisite to understanding human motion, movements, Cognito-motor functions and effects of pathologic conditions in relation to the above.

Sr.No	Regions	Didactic Hours	Practical hours	Total hours
1	General Anatomy & Histology	14	03	17
2	Musculoskeletal System	62	33	95
3	Neuroanatomy	50	12	62
4	Systemic Anatomy	13	03	16
5	Cardiovascular &Respiratory System.	14	05	19
6	Abdomen	06	02	08
7	Sensory Organs	08	02	10
8	Endocrine & Exocrine System	04	-	04
9	Radiology	04	-	04
	TOTAL HOURS	175	60	235

.No.		Topic	Content	Didactic Hours	Practical Hours	Total Hours
A1		**GENERAL ANATOMY AND HISTOLOGY:**		**14**	**03**	**17**
	a.	General Anatomy:	i. Surface Anatomy ii. Fascia iii. Muscles iv. Bones v. Joints vi. Nerve vii. Vessels	07	-	
	b	General Histology:	i. Epithelial ii. Connective tissue iii. Muscle iv. Bone and cartilage v. Nerve and vessels vi. Embryology.	07	03	
A2		**MUSCULOSKELETAL SYSTEM**		**62**	**33**	**95**
	a	Superior extremity		20	10	

	b	Inferior extremity		20	10	
	c	Back & Thoracic Cage		05	05	
	d	Head ,Neck &Face		13	06	
			i. Skull and Mandible ii. Facial Muscles, blood supply, nerve supply iii. Triangles of neck, Glands, Tongue & Palate iv. Larynx & Pharynx v. Muscles of mastication & T.M. joint vi. Extra ocular muscles with nerve supply vii. Nose & Para nasal sinuses.	02 03 03 01 02 01 01	01 01 01 01 01 01	
	e	Living Anatomy:	i. Upper extremity ii. Lower extremity iii. Head Neck & Face iv. Trunk	04	02	
A3	**NEURO ANATOMY:**			**50**	**12**	**62**
	a	General organization of Nervous System.		05	-	
	b	Central Nervous System.		20	08	
	c	Peripheral Nervous System.	Peripheral Nerves. Cranial nerves.	12	04	
	d	Autonomic Nervous System.	ii. Sympathetic. iii. Parasympathetic.	13	-	
A4	**SYSTEMIC ANATOMY**			**13**	**03**	**16**
	a	Alimentary system		05	-	
	b	Urinary System		03	-	
	c	Genital system:	i. Male organs ii. Female organs iii. Pelvic cavity	05	03	
A5	**CARDIO VASCULAR & RESPIRATORY ANATOMY:**			**14**	**05**	**19**
	a	Thoracic wall		02	-	
	b	Mediastinum		02	-	
	c	Heart and major blood vessels		04	02	
	d	Lungs		02	01	

SVIMRev

	e	Diaphragm &Intercostals		02	01	
	f	Ribs and sternum		02	01	
A6	**ABDOMEN**			**06**	**02**	**08**
		Muscles of abdomen		03	01	
		Muscles of pelvis & pelvic floor		03	01	
A7	**SENSORY ORGANS**			**08**	**02**	**10**
	a	Ear		03	01	
	b	Eye		03	01	
	c	Skin		02		
A8	**ENDOCRINE & EXOCRINE SYSTEM**			**04**	**-**	**04**
A9	**RADIOLOGY**			**04**	**-**	**04**
	TOTAL HOURS			**175**	**60**	**235**

RECOMMEMDED TEXT BOOKS:

1. Human Anatomy – Snell
2. Anatomy- Chaurasia, Volume- I,II & III
3. Neuro anatomy – Inderbir Singh
4. Human Anatomy – Kadasne, Volume- I,II & III
5. Neuroanatomy – Vishrsam Singh
6. Human Anatomy – Datta

RECOMMENDED REFERENCE BOOKS:

1. Gray's Anatomy
2. Extremities -- QuiningWasb
3. Atlas of Histology -- Mariano De Fiore
4. Anatomy & Physiology -- Smout and McDowell
5. Kinesiology -- Katherine Wells
6. Neuroanatomy -- Snell
7. Neuroanatomy -- Vishrsam Singh
8. Cunnigham`s- Practical Anatomy

SCHEME OF UNIVERSITY EXAMINATION:

Distribution of maximum marks for the subject having 100 marks shall be as follows:

University exam-80 marks, internal assessment- 20 marks.

Internal Assessment: As per University pattern, one exam at the end of each term. Average of total marks obtained to be considered for internal assessment.

Duration of paper: 3 Hours.

Scheme of theory exam to be conducted out of 80 marks:

Section	Type of Question	Marks Distribution
A **SAQ (50 Marks)**	Q-1 SAQ's-Answer any FIVE out of SIX Q-2 SAQ's-Answer any FIVE out of SIX	(5x3) =15 Marks. (5x7) =35Marks
B **LAQ (30 Marks)**	Q-3 LAQ's-Answer any ONE out of TWO Q-4 LAQ's-Answer any ONE out of TWO	(1x15) =15Marks. (1x15) =15Marks.
	TOTAL	80 Marks.

PRACTICAL EXAMINATION:

Total marks 100,

University Exam 80, Internal Assessment.-20

Internal Assessment: One exam at the end of each term. Average of total marks obtained to be considered for Internal Assessment.

PRACTICAL 80 MARKS + I.A. – 20 MARKS		Marks 100
Spots	Based on: i. Musculoskeletal (5x3) = 15 marks ii. Organ Systemic (5x3) = 15 marks iii. Neuroanatomy (5x3) =15 marks iv Soft parts of thorax, spine, neck UL,LL(5x3=15)	60
Viva	i. Hard parts ii. Soft parts	15
Journal	Year work on practical performed	05
Total		80 marks

Syl Rev I

BOT I/02/B -HUMAN PHYSIOLOGY

Didactic-155 hours +Practicals-80 hours = 235 Total hours.

COURSE DESCRIPTION: Focuses on the normal functioning of tissues, organs and organ systems, maintenance of internal homeostasis through control of the neuro-humoral mechanisms. Emphasizes the role of the endocrine and cardio-pulmonary systems in normal body states. Correlates the functioning of various body systems to efficient functioning of human in environment, forms a foundation of knowledge to understand the future applications in exercise, activity and work performance in context to occupational therapy applications.

Sr. No	Topics	Didactic hours.	Practical hours.	Total hours.
1	General Physiology	28	48	183
2	Nervous System	35		
3	Excretory System	06		
4	Integument & Temperature Regulation	04		
5	Endocrine System	06		
6	Reproductive System	07		
7	Special Senses	06		
8	Respiratory System	20		
9	Cardiovascular System	20		
10	Gastrointestinal System	03		
11	Exercise Physiology	15	12	27
12	Physiology Of Ageing	05	-	05
13	Clinical Examination	-	20	20
	TOTAL HOURS	155	80	235

Sr. No.		Topic	Content	Didactic Hours	Practical	Total Hours
B1		**GENERAL PHYSIOLOGY:**				
	a	Cell	i. Structure of cell membrane ii. Transport across cell membrane iii. Homeostasis	04	-	28
	b	Blood	i. Rh- ABO system & mismatch-transfusion ii. WBC iii. Plasma protein iv,Erythrocytes v. Platelets vi. Hemoglobin vii. Normal values of blood (composition & function) viii Bleeding time & clotting time.	07	-	

SyllRev

	c	Nerve	i. Structure, classification & Properties ii. R.M.P& action potential iii. Propagation of nerve impulse iv. Nerve injuries –degeneration, regeneration and reaction of degeneration(retrograde)	08	-	
	d	Muscle	i. Structure- properties- classification- smooth, skeletal, cardiac, excitation/ contraction coupling ii. Factors affecting development of muscle tension, fatigue, load. iii. Neuro-muscular transmission; applied physiology: Myasthenia gravis, Eaton Lambert Syndrome. iv. Motor unit EMG	09	-	
B2	**NERVOUS SYSTEM:**					
	a	Central Nervous System(CNS), Peripheral Nervous System(PNS), Autonomic Nervous System(ANS).	Introduction of nervous system, classification – C.N.S., P.N.S. & A.N.S	02	-	35
	b	Synapse	structure, properties, & transmission	02	-	
	c	Reflexes	classification & properties	02	-	
	d	Receptor	Physiology, classification, properties.	02	-	
	e	Tracts	Sensory and motor tracts: effect of transaction (complete and incomplete) at various levels	06	-	
	F	Sensations	Physiology of Touch, Pain, Temperature & Proprioception;	04	-	
	g	Muscle tone	Physiology of Muscle Tone (muscle spindle); Stretch reflex	04	-	
	h	Functions of cortex	Connection & function of Basal ganglia, Thalamus, Hypothalamus, Sensory and Motor cortex, Cerebellum, Limbic system, Vestibular	06	-	
	i.	ANS	Autonomic nervous system: Structure and functions of the sympathetic and the parasympathetic nervous system.	03	-	
	j.	Learning & memory	Learning, memory & conditioned reflex	02	-	

SVIREV

	k.	Voluntary movement.	Physiology of Voluntary movement	02	-	
B3	**EXCRETORY SYSTEM:**					
		General organization of System	i.Kidneys-structure & function; ii. Urine formation;(to exclude concentration and dilution) iii. Juxtaglomerular apparatus iv. Fluid and electrolyte balance – Na, K, H2O v. Neural control of Micturation vi. Applied physiology: Types of bladder	06	-	06
B4	**INTEGUMENTARY SYSTEM & TEMPERATURE REGULATION**					
	a	Integument integrity:	Structure of Skin, functions of skin and sweat mechanism.	02	-	04
	b	Temperature regulation:	Regulation of body temperature, factors affecting and applied physiology.	02	-	
B5	**ENDOCRINE SYSTEM**					
	a	Pituitary- Thyroid- Adrenal- Parathyroid- Pancreas	Secretion, regulation & function Applied physiology (abnormalities) of the mentioned glands.	06	-	06
B6	**REPRODUCTIVE SYSTEM:**					
		Muscles of abdomen . Physiology of ovary and testis.	i. Physiology of menstrual cycle and spermatogenesis ii. Functions of progesterone, estrogen and testosterone iii. Puberty & menopause iv. Physiological changes during pregnancy.	07	-	07
B7	**SPECIAL SENSES**					
	a	Ear	Structure and function of the ear Applied physiology- types of deafness	03	-	06
	b	Eye	Structure and function of the eye Applied physiology: errors of refraction, accommodation, reflexes – dark and light adaptation, photosensitivity.	03	-	
B8	**RESPIRATORY SYSTEM:**					
		Introduction, structure and	Mechanics of respiration; Pulmonary Volumes & capacities;	20	-	20

SVI Rev I

		function of the RS	Anatomical & Physiological Dead space -ventilation/perfusion ratio, alveolar ventilation Transport of respiratory gases Nervous & Chemical control of respiration Pulmonary function tests-Direct & indirect method of measurement Physiological changes with altitude & acclimatization			
B9	**CARDIOVASCULAR SYSTEM:**					
		Structure & properties of cardiac muscle:	Cardiac impulse- initiation and conduction Cardiac cycle	08	-	20
		Heart rate regulation	Blood pressure- definition-regulation-Cardiac output regulation & function affecting; Peripheral resistance, venous return Regional circulation-coronary-muscular, cerebral Normal ECG.	12	-	
B10.	**GASTRO INTESTINAL SYSTEM:**					
		Absorption and digestion in brief	Liver function	03	-	03
B11	**EXERCISE PHYSIOLOGY:**					
			i. Basal Metabolic Rate and Respiratory Quotient. ii. Energy metabolism. iii. Fatigue iv. Oxygen debt v. Immediate cardio vascular changes during exercise, responses to mild, moderate and severe exercise, concept of endurance. vi. Immediate respiratory changes during exercise vii. Concept of training/conditioning, effects of chronic exercise/effect of training on the cardiovascular & respiratory system. viii. Body temperature regulation during exercise. ix. Hormonal and metabolic effects during exercise. x. Effects of exercise on muscle strength, power, endurance.	15	-	15

SM Rev I

			xi. Physical fitness and its components.			
B12	**PHYSIOLOGY OF AGEING:**					
		With respect to systems		05	-	05
TOTAL HOURS						**155**

PRACTICAL TOPICS:

Sr. No.	**Topics**	**Practical Hours**
1.	Haematology – (demonstration only)	15
2.	GRAPHS:	12
	a. Skeletal muscle and its properties	
	b. Cardiac muscle-properties-effect of Ach & Adrenaline	
3.	Blood pressure- effects of change in posture & exercise	08
4.	Examination of pulse	02
5.	Spirometry	04
	a. Lung volumes and capacities	
	b. Timed vital capacity	
6.	Perimetry	04
7.	Physical fitness:	12
	a. Breath holding	
	b. Mercury column test;	
	c. Cardiac efficiency test- Harvard step test- Master step test	
8.	Bicycle Ergometry	03
9.	Clinical examination: History taking and general examination /Respiratory system / cardio vascular system / Higher functions /Cranial nerves /Reflexes / Motor & Sensory system, cerebellar function test.	20
	TOTAL HOURS	80

RECOMMENDED TEXT BOOKS

1. Text book on Medical Physiology – Guyton
2. Textbook of Physiology – A K Jain .

RECOMMENDED REFERENCE BOOKS

1. Review of Medical Physiology – Ganong
2. Samson & Wright"s Applied Physiology
3. Textbook of Medical Physiology – Bern and Levy.

SCHEME OF UNIVERSITY FOR THEORY EXAMINATION:

Distribution of maximum marks for the subject having 100 marks shall be as follows:

University exam-80 marks, internal assessment- 20 marks.

Internal Assessment**:** As per University pattern, one exam at the end of each term. Average of total marks obtained to be considered for internal assessment.

Duration of paper: 3 Hours.

Scheme of theory exam to be conducted out of 80 marks:

Section	Type of Question	Marks Distribution
A **SAQ** **(50 Marks)**	Q-1 SAQ's-Answer any FIVE out of SIX Q-2 SAQ's-Answer any FIVE out of SIX	(5x3) =!5 Marks (5x7) =35Marks
B **LAQ** **(30 Marks)**	Q-3 LAQ's-Answer any ONE out of TWO Q-4 LAQ's-Answer any ONE out of TWO	(1x15) =15Marks (1x15) =15 Marks
	TOTAL	80 Marks

PRACTICAL EXAMINATION:

Total marks 100,

University Exam 80, Internal Assessment.-20

Internal Assessment: One exam at the end of each term. Average of total marks

obtained to be considered for Internal Assessment.

PRACTICAL 80 MARKS + I.A. – 20 MARKS		marks 100
Spots	Based on: practical Topics 1-9 (10 X 2 Marks)	20
Viva	Based on theory	20
Demonstration	On Clinical Physiology C.V.S. 10 Marks R.S. 10 Marks C.N.S.and Cranial Nerves and Special Senses 15 Marks	35
Journal	Year work on practicals performed	05
Total		80

SVI Rev I

BOT- I/03/C- BIOCHEMISTRY:

Didactic-46 hours +Practicals-04 hours = 50 Total hrs.

Course Description:

Biochemistry introduces knowledge of basic biochemical structures, functions and co-r relation of macro molecules-carbohydrates, lipids, proteins, hemoglobin and nucleic acid. Allows understanding of biochemical processes like glycolysis, TCA cycle, glycogenesis; levels of blood sugar, their fluctuations with respect to types of food consumed, integrated aspects of macro molecules and their metabolism. It enhances the knowledge of nutritional principles, imbalance, deficiencies and the role of exercises and activity in disease states and normal conditions.

Sr.no	TOPIC	DIDACTIC HOURS	PRACTICAL HOURS	TOTAL HOURS
1	Carbohydrates	9	-	09
2	Proteins	6	-	06
3	Enzymes	4	-	04
4	Vitamins	4	-	04
5	Minerals	5	-	05
6	Hormones	1	-	01
7	Nutrition	3	-	03
8	Clinical Biochemistry	6	4	10
9	Lipids	4	-	04
10	Muscle Contraction	3	-	03
11	Nucleic Acid	1	-	01
	TOTAL	46	04	50

		Topic	Content	Didactic Hours	Practical Hours	Total Hours
C1		**CARBOHYDRATES :**				
		Chemistry of carbohydrates:	Definition, Structure, Classification with examples, Functions	02		09
		Metabolism of carbohydrates: starting and ending products, tissues of occurrence and the conditions when the pathway is activated, deactivated and significance of the pathway.	Digestion and Absorption, Glycogenesis, Gluconeogenesis, Glycogenolysis and HMP pathway, Glycolysis, Electron transport chain for ATP synthesis, TCA cycle. Hormonal regulation of blood.	04		

		Disorders of Glycogen: metabolism : starting and ending products, tissues of occurrence and the conditions when the pathway is activated, deactivated and significance of the pathway.	Glucose, Glycogen storage disorders, Diabetes mellitus, Glycosuria, changes in Carbohydrate, Protein & Lipid metabolism.	03		
C2	**PROTEINS :**					
		Chemistry of proteins :	Definition, Importance, Functional Classification, Structure of protein, the essential and non-essential amino acids.	03		06
		Protein Metabolism:	Digestion & Absorption, decarboxylation, deamination, transamination, transmethylation, Urea cycle, clinical significance of serum urea function of glycine, Phenylalanine, trytophan, methionine tyrosine.	03		
C3	**ENZYMES:**					
		Chemistry of enzymes:	Definition, Modern Classification, Factors affecting enzyme Action, diagnostic & therapeutics uses & enzymes, Isoenzymes, Competitive &Non competitive inhibition.	04		04
C4	**VITAMINS:**					
		Definition, classification, sources and deficiency manifestations:	Fat & water soluble vitamins, functions, RDA	04	-	04
C5	**MINERALS :**					
		Functions, sources and deficiency manifestations:	Ca, P, Fe, I, Zinc, Selenium, Fluorine, Magnesium ,Na and K.	05	-	05

Sylvi

C6	**HORMONES:**					
		Definition and classification of hormones: Mechanism of Hormone action:	Chemical structure -peptide or protein hormones, amine hormones or aminoacid derivatives and steroid hormones. Mechanism of hormone action-group I and group II.	01	-	01
C7	**NUTRITION:**					
		Nutrients and their role in human, nutritional requirements, energy requirements and nutritional disorders:	Composition of food, balanced diet, Kwashiorkor, Marasmus, Nitrogen balance, major Dietary constituent & their importance. Include energy requirements, factors affecting B.M.R., S.D.A. (Specific Dynamic Action) and R.Q. (Respiratory Quotient)	03	-	03
C8	**CLINICAL BIOCHEMISTRY:**					
		Organ function test:	Liver Function Test, Renal Function Test, Lipid profile in serum, Thyroid function test.	03	-	10
		Metabolism in starvation:	Starvation metabolism, Hemoglobin chemistry and metabolism.	03	-	
		Demonstrations: Demonstration of estimation of various biomolecules and their interpretation:	Interpret reports of various conditions (including Diabetic profile, Cardiac profile, Uric acid and Gout)	-	04	
C9	**LIPIDS:**					
		Chemistry of lipids.	Definition, classification with examples, functions and biomedical importance, Phospholipids & lipoproteins functions.	02		04
		Metabolism of lipids:	Digestion & absorption of lipid, β oxidation of fatty acid with Energetic, Ketone bodies and their metabolism, Prostaglandins and essential Fatty acids, Cholesterol, importance of cholesterol, obesity.	02		
C10	**MUSCLE CONTRACTION:**					

		Mechanism & Biochemical events:	Mechanism & Biochemical events Connective Tissue-Biochemistry of connective tissue Collagen-Glyco-protein proteoglycans. Protein composition of muscle fibre. Sources of energy in muscle contraction.	03	-	03
C11	**NUCLEIC ACID:**					
			Function of DNA, RNA, genetic code specialized products of amino acids	01	-	01
	Total			46	04	50

RECOMMENDED TEXT BOOKS

1. Biochemistry – Dr. Satyanarayan
2. Text book of Biochemistry for Medical students – Dr. Vasudevan / Shri Kumar
3. Biochemistry – Dr. PankajaNaik

RECOMMENDED REFERENCE BOOK

1. Review of Biochemistry (24th edition) – Harpar

SCHEME OF UNIVERSITY EXAMINATION:

Distribution of maximum marks for the subject having 50 marks shall be as follows:

University exam-40 marks, Internal assessment- 10 marks.

Internal Assessment: As per University pattern, one exam at the end of each term. Average of total marks obtained to be considered for internal assessment.

Duration of paper: 2 Hours.

Scheme of theory exam to be conducted out of 40 marks:

	Type of question	Marks Distribution.
	Q 1 Short Answer Question SAQ (any five out of six)	(5x3)=15 marks
	Q 2 Short Answer Question(SAQ)(any five out of six)	(5x5)=25 marks
TOTAL		40 Marks

BOT I/ 04/D: FUNDAMENTALS OF OCCUPATIONAL THERAPY

Didactic-140 hours +Practicals-210 hours = 350 Total hours.

Course description:
The course introduces the history and development of the profession; it presents theoretical constructs of occupation, purposeful activity and occupational science. It creates an understanding of definition and scope of OT practice in context of occupational science. Provides a generic outline of the domains of concern of OT, standard language and terminologies used for documenting in regards to OT evaluation, assessment, planning discharge and therapeutic applications.

Sr.No	TOPIC	DIDACTIC HRS	PRACTICAL HOURS	TOTAL HRS
D1	History of Occupational Therapy	08		08
D2	Scope of Occupational Therapy	08	10	18
D3	Occupational Science	10	10	20
D4	Principles and methods of assessment.	67	150	217
D5	Hand Functions.	10	10	20
D6	Therapeutic Exercises	20	15	35
D7	Therapeutic modalities in Occupational Therapy.	17	15	32
TOTAL HOURS		140	210	350

D 1: HISTORY OF OCCUPATIONAL THERAPY

Sr.No.		Topic	Content	Didactic Hours	Practical Hours	Total Hours
D1	a	History and development of Occupational Therapy History of Occupational Therapy internationally	Development of OT during world War Arts & crafts movement Moral treatment Formation of National society for promotion of OT (NSPOT) Educational standards Publications Organizations Models and theories	04		08
	b	Formation of All India Occupational Therapists Association (AIOTA) & Maharashtra State Council of Occupational Therapy & Physical Therapy	Development of Occupational Therapy in India Functions of AIOTA & council	04		

D2		**SCOPE OF OCCUPATIONAL THERAPY:**				
D2	a	Definition and scope of Occupational Therapy	Definition of Occupational Therapy and its scope in rehabilitation Definition of rehabilitation Philosophy of rehabilitation with reference to principles of physical medicine	04		18
	b	Team interaction models	Rehabilitation team and the role of different team members. Intra disciplinary , interdisciplinary and multidisciplinary models of interaction	04		
	c	Practicum: Audio-visuals, inter-active sessions.	Oral presentations on team roles by students, discussions		10	
D3		**OCCUPATIONAL SCIENCE**				
D3	a	Theory of Occupation and Occupational Science	Definition of Occupation, Forms of Occupation, Occupation as an evolutionary trait, Biological, social, psychological dimensions of Occupation. Introduction to Occupational science, Linkage between Occupational science and Occupational Therapy	10		20
	b	Practicum	Seminar presentation on Occupational Science		10	
D4		**PRINCIPLES AND METHODS OF ASSESSMENT**				
D4	1a	**Joint Range of Motion(R.O.M).** (Upper Limb, Lower Limb, Spine & TM joints).	Principles and procedures in joint measurement. Definitions of terms in joint measurement. Methods of joint measurements. Functional ROM Total Active motion Indications and contraindications of recording.	10		70

Syllabus

	1b	Practicum/Practical/ Labs: Demonstration , Hands on practice on peers, models or clients under supervision, interactive sessions following clinical and/or simulated audio-visual presentations. Reflective writing.	Demonstration- Patient positioning. Identification of surface landmarks for goniometry. Goniometric placements. Recording measurements. With goniometry. AROM/PROM. Assessing functional ROM in tasks. Measuring Fixed Flexion Deformity (FFD) and extension deformity. Identification of end feels. Case writing with ROM.		60	
	2a	**Muscle Strength**	Definition of muscle Power and strength Principles of muscle testing Indications &contraindications of muscle testing. Gross muscle testing in normal and clinical conditions. (muscles of upper extremity & lower extremity) Precautions in manual muscle testing	05		30
	2b	Practicum / Practical / Labs: Demonstrations, simulated case presentations on models and clinical diagnosis using audio visuals, practice on peers, models & patients under supervision.	Learn & perform gross muscle testing on normal & patients in upper & lower extremities Identify strength in functional tasks.		25	
	3a	**Muscle Tone.**	Definition of tone. Normal Muscle tone Abnormal Muscle tone Muscle tone assessment-Modified Ashworth Scale/Pearsons rating of mild, moderate severe spasticity.	10		25
	3b	Practicum/practical/ Labs: Demonstration , Hands on practice	Seminar presentation on control system. Evaluation, palpation testing for normal tone and		15	

		on peers, models or clients under supervision, interactive sessions following clinical and/or simulated audio-visual presentations	variations in tone under supervision of staff. Identification of types of muscle tone in normal and patients (pyramidal, extrapyramidal & lower motor neuron)			
	4a	**Co-ordination**	Definition Characteristics of co-ordinated movements In co-ordination Cerebellar signs Extra pyramidal signs Assessment of co-ordination	07		22
	4b	Practicum/Practical/ Labs: Demonstration , Hands on practice on peers, models or clients under supervision, interactive sessions following clinical and/or simulated audio-visual presentations	Seminar presentation on coordination. Tests for cerebellar signs. Tests for extra pyramidal signs. Upper body and lower body tests for space, time, and rhythm.		15	
	5a	**Sensation**	Definition. Classification of sensations. Techniques and methods of sensory evaluation. Specific sensory testing.	05		20
	5b	Practicum/practical/ Labs: Demonstration , Hands on practice on peers, models or clients under supervision, interactive sessions following clinical and/or simulated audio-visual presentations.	Seminar presentation on sensory receptors, and pathways. Tests for superficial sensations and deep sensations under supervision. Practical Introduction and procedural learning to sensory kits.		15	
	6a	**Perception:** Types of perceptual deficits- Body scheme, unilateral neglect, spatial relations & position in space and apraxia.	Definition. Components and description of each. Assessment methods	12		22

	6b	Practicum/Practical/ Labs: Demonstration, Hands on practice on peers, models or clients under supervision, interactive sessions following clinical and/or simulated audio-visual presentations.	Demonstrations and practice of each component of perception as in uniform terminology.		10	
	7a	**Cognition**	Definition. Evaluation of cognitive Skills- Attention, Orientation, Memory (Immediate, Short term and Long term Memory), problem solving and Executive functions.	10		15
	7b	Practicum/Practical/ Labs: Demonstration , Hands on practice on peers, models or clients under supervision, interactive sessions following clinical and/or simulated audio-visual presentations.	Demonstration and execution of tests on – Memory -3 types. Attention. Orientation.		05	
	8a	**Endurance**	Definition Importance of Endurance in performance. Factors affecting endurance. Relation to activity tolerance.	08		13
	8b	Practicum/Practical/ Labs: Demonstration , Hands on practice on peers, models or clients under supervision, interactive sessions following clinical and/or simulated audio-visual presentations.	Demonstration in common tasks, exercises. Discussion with respect to endurance tasks.		05	

SLIRev

D5		**HAND FUNCTIONS:**				
D5	a	Hand Functions & Evaluation Methods	Functional anatomy of wrist and hand. Types of Hand functions- Prehension Grasp patterns Grip Pinch. In hand manipulation. Theoretical aspects of Assessment. Total active motion. Functional evaluation of hand. Edema assessment methods	10		20
	b	Practicum/Practical/ Labs: Demonstration , Hands on practice on peers, models or clients under supervision, interactive sessions following clinical and/or simulated audio-visual presentations.	Demonstration -- Procedural Assessments of all above functions and edema. Assessment of in-hand manipulation in any two tasks. Total active motion of hand. Practice on peers, models and patients. .		10	
D6		**THERAPEUTIC EXERCISES:**				
D6	a	Introduction to exercises	History, definition, principles, purposes, prerequisites, precautions, general indications and contraindications of therapeutic exercises.	04		35
	b	Therapeutics of muscle contractions	Types of movements, muscle contractions used in therapeutic exercises.	02		
	c	Exercise classification.	Types of therapeutic exercises, Progressive Resistive Exercise (PRE). Regressive Resistive Exercise (RRE). Brief Repetitive Isometric Maximal Exercise (BRIME). Indications, Contraindications and precautions in therapeutic milieu	07		

SLPCI

	d	Objectives of therapeutic exercises	Objectives - Improve Range of Motion. Improve Muscle Strength and Power, Improve General & Muscle Endurance. Improve Co-ordination. Reset Soft tissue length	07		
	e	Practicum/Practical/ Labs: Demonstration , Hands on practice on peers, models or clients under supervision, interactive sessions following clinical and/or simulated audio-visual presentations.	Demonstration and Identification of muscle contractions in different types of exercises, correlation of contractions in tasks.		15	
D7		**THERAPEUTIC MODALITIES IN OCCUPATIONAL THERAPY:**				
D7	a	Media, Methods, Modalities. Activity Analysis.	Definition and description. Principles of activity analysis in respect to biomechanical, sensory motor & socio-cultural aspects. Criteria for selection of an activity. Adapting & grading activity. Activity Analysis : Shoulder Wheel Inclined Sanding Bicycle Fret Saw Eating.	04 05 08		32
	b	Practicum/Practical/ Labs: Demonstration, Hands on practice on peers, models or clients under supervision, interactive sessions following clinical and/or simulated audio-visual presentations.	Labs ,practical for the following activities: Shoulder Wheel. Inclined Sanding. Bicycle Fret Saw. Eating.		15	
		TOTAL		140	210	350

SyllRev1

BOOKS RECOMMENDED:

1.Willard and Spackman's Occupational Therapy by Elizabeth Blesedel lCrepeau, Ellen S. Cohn, Barbara A. Boyt Schell.
2. Occupational Therapy - Practice Skills for Physical Dysfunction by Lorraine Williams Pedretti. Published by Mosby
3. Occupational Therapy for Physical Dysfunction by Catherine A. Trombly, Mary Vining Radomski. Published by Lippincott Williams & Wilkins
4. Occupational Therapy and Physical Dysfunction: Principles, Skills and Practice by Annie Turner, Marg Foster, Sybil E. Johnson. Published by Churchill Livingstone
5. Therapeutic Exercise by John V. Basmajian& Steven L. Wolf. Published by Williams & Wilkins
6. Therapeutic Exercise, Foundation & Techniques by Carolyn Kisner& Lynn Allen Colby. Published by F. A. Davis Company
7. Muscle Testing & Function by F.P. Kendall
8. Daniel's &Worthingham's Muscle Testing.
9. Measurement of Joint Motion: A guide to goniometry by C.C. Norkin& D. J. White
10. Principle of Exercise Therapy by Dena Gardiner

SCHEME OF UNIVERSITY EXAMINATION:

Distribution of maximum marks for the subject having 100 marks shall be as follows:

University exam-80 marks, Internal assessment- 20 marks.

Internal Assessment: Internal assessment as per University pattern**.** One exam at the end of each term. Average of total marks obtained to be considered for Internal assessment:

Duration of paper: 3 Hours.

Scheme of theory exam to be conducted out of 80 marks:

Section	Type of Question	Marks
A **SAQ (50Marks)**	Q-1 SAQ's-Answer any FIVE out of SIX Q-2 SAQ's-Answer any FIVE out of SIX	(5x3) =15Marks. (5x7) =35Marks
B **LAQ (30 Marks)**	Q-3 LAQ's-Answer any ONE out of TWO Q-4 LAQ's-Answer any ONE out of TWO	(1x15) =15Marks. (1x15) =15Marks
Total Marks		**80**Marks

PRACTICAL EXAMINATION:

Total marks 100, University Exam out of 80.

Internal Assessment: One exam at the end of each term.

Average of total marks obtained to be considered for Internal Assessment.

The distribution of marks for practical exam at University to be conducted out of 80 marks:

Section	**Type of Question**	**Marks Distribution**
A.	Range of Motion	20 marks
B.	Group Muscle Testing	20 marks
C.	Activity Analysis	20 marks
D.	Viva Voce	15 marks
E	Communication Skills	05 marks

Syll Rev I

BOT 1/05/E: OCCUPATIONAL THERAPY DIAGNOSIS - I

Didactic-140 hours +Practicals-200 hours = 340 Total hours.

Course Description: Develops theoretical and practical concepts towards understanding of Occupational Therapy methods and media as diagnostic tools to assess and intervene components of function, provides a generic outline of the domains of concern in Occupational Therapy. It educates the student about the holistic concepts of human development and maturation from birth through adult life for analysis of human performance in terms of activities of daily living, return to work, fitness for work. It develops concepts of splinting and the appropriate selection of material in relation to prescription and fabrication**.**

Sr.No	Topic	Didactic Hours	Practicum/Practical/ Reflective writing hours	Total hours
E1	Uniform terminology for Occupational Therapy.	14	10	24
E2	Diagnostic tools in Occupational Therapy	06	08	14
E3	Human Development And Maturation	10	10	20
E4	Activities Of Daily Living.	38	32	70
E5	Return To Work.	32	50	82
E6	Tools, Equipment & material used in Splint Fabrication.	20	40	60
E7	Introduction To Hand Splinting.	20	50	70
TOTAL HOURS		140	200	340

Syll Rev I

Sr.No.		Topic	Content	Didactic Hours	Practical Hours	Total Hours
		E: 1 Uniform terminology in Occupational Therapy				
E I	a	Uniform terminology for Occupational Therapy	Guidelines for use of Uniform terminology. Occupational performance areas – activities of daily living, work activities and play or leisure activities. Occupational performance components – sensory motor component, social and self-management. Contextual components	09		24
	b	Occupational Performance Model (OPM). Occupational Therapy Practice framework (OTPF) Occupational Functioning Model (OFM)	Description of OPM, OTPF and OFM Similarities between the Models and relation with International Classification of Function (ICF)	05		
	c	Practicum: Audio visuals, interactive sessions	Presentation by groups on each sub component, interactive discussion. Identification and application of Models based on simulated and live case presentations.		10	
E2		**DIANOSTIC TOOLS IN OCCUPATIONAL THERAPY**				
	a	Occupational Therapy: Diagnostic & Prognostic Procedures	Definition of screening, evaluation and assessment. Screening purpose and process Types of evaluation Steps in evaluation. Assessment	06		14
	b	Practicums: presentation, audio-visuals and	Group presentation on each sub topic and interactive discussions.		08	

SMRev

		interactive sessions	Demonstration, screening, evaluation, assessment and types of evaluation through simulated or live case presentations			
E 3		**HUMAN DEVELOPMENT AND MATURATION**				
	a	Human Development and Maturation	Definition & importance of knowledge base of human development. Aspects of human development: physical, motor, sensory, cognitive, emotional, cultural and social. Factors influencing human growth & development: biological, environmental and inherited.	05		20
	b	Principles of Maturation	General principles Anatomic directional principles: i. Cephalo-caudal patterns of development. ii. Proximal distal patterns of development. iii. Medial lateral patterns of development. iv. Mass to specific patterns of development. v. Gross motor to fine motor patterns of development.	05		
	c	Practical/Practicums/ Labs: Demonstrations, simulated and live case presentations**:**	Identification of normal and abnormal patterns in live and simulated cases as presented using audio-visuals.		10	
E 4	**ACTIVITIES OF DAILY LIVING:**					
	a	Evaluation &Gradation of Activities of daily living (ADL).	Definition & classification of ADL. (BADL & IADL) Levels of assist.[dependent to independent]	10		70

SylRev

	b	Introduction and application of ADL scales.	Theoretical understanding of standardized ADL scales, components and application of Functional Independence Measure (FIM) Functional Assessment Measure (FAM) Assessment of Motor and Process Skills (AMPS) Modified Barthel Index.	18		
	c	Compensatory principles in ADL	Explaining the principles in ADL related to Weakness Low endurance Limited ROM Incoordination Loss of use of one side of body Limited vision Decreased sensation	10		
	d	Practical/Practicums/ Labs: Seminar presentations, Demonstrations on models, peers, patients under supervision, simulated presentations using audio-visuals, interactive sessions. Demonstration and use of ADL scales. Interpretation of performance with clinical reasoning	Identify and classify ADL Apply Barthel index, FIM-FAM, AMPS on normal subjects and clients with limitations in performance component Rate level of independence in ADL		32	

E 5	**RETURN TO WORK:**					
	a	Definition and Elements of Work	Definition of work Work behaviours, Work skills, Work aptitudes, Physical Demands.	06		82
	b	Work assessments	Functional Capacity Evaluation Physical Capacity Evaluation Work Capacity Evaluation Work evaluation tools Work site evaluations Situational Assessments Psychometric instruments Work Samples- Actual, Simulated, Single trait, Cluster Trait	10		
	c	Product lines	Work Conditioning Work Hardening Vocational Training	10		
	d	Job analysis	Assessment needs &components in analysis. Analysis of- Tailoring. Data entry on computers. Carpentry. Driving.	06		
	e	Practical/ Practicums/Labs: Seminar presentations, Demonstrations on models, peers, patients under supervision, simulated presentations using audio-visuals, interactive sessions	Group wise presentation of analysis of below jobs Tailoring. Data entry on computers. Carpentry. Driving		50	
E6	**TOOLS, EQUIPMENT AND MATERIALS USED IN SPLINT FABRICATION:**					
E6	a	Files, Pliers, Saws, Chisels, Hammers.	Types, components, therapeutic values and uses of tools Care& Handling of Tools,	05		60

SylRev

			Equipment and Materials.			
	b	Equipment	Fret Saw Bicycle Sewing Machine Pronation Supination Wheel	05		
	c	Splinting Materials	Thermoplastics and fabricating materials, padding materials, harnessing materials, securing/fixing materials, adhesives etc.	10		
	d	Practical/ Practicums/Labs: seminar presentations, Demonstrations , simulated presentations using audio-visuals, interactive sessions	Care and handling of tools and equipment. Identification of material. therapeutic values related to tools		40	
E 7	**INTRODUCTION TO HAND SPLINTING:**					
	a	Definition and Classification of Splints.	Definition, classification, principles and material used in designing & fabrication of splints, check out of splint. Basics of prescription.	10		70
	b	Splints:	Finger Gutter Resting pan Short opponens Dynamic extension outrigger splint Radial bar cock up	10		
	c	Practical/Practicums/ Labs: seminar presentations, Demonstrations on models, under supervision, simulated presentations using audio-visuals, interactive session	Actual designing and paper pattern of splints- Finger Gutter Resting pan Short opponens Dynamic extension outrigger splint Radial bar cock up ..		50	
		TOTAL		140	200	340

BOOKS RECOMMENDED:

1.Willard and Spackman's Occupational Therapy by Elizabeth Blesedell Crepeau, Ellen S. Cohn, Barbara A. Boyt Schell. Published by Lippincott Williams & Wilkins
2. Occupational Therapy - Practice Skills for Physical Dysfunction by Lorraine Williams Pedretti. Published by Mosby
3. Occupational Therapy for Physical Dysfunction by Catherine A. Trombly, Mary Vining Radomski. Published by Lippincott Williams & Wilkins
4. Occupational Therapy and Physical Dysfunction: Principles, Skills and Practice by Annie Turner, Marg Foster, Sybil E. Johnson. Published by Churchill Livingstone
5. Therapeutic Exercise by John V. Basmajian & Steven L. Wolf. Published by Williams & Wilkins
6. Therapeutic Exercise, Foundation & Techniques by Carolyn Kisner& Lynn Allen Colby. Published by F. A. Davis Company
7. Muscle Testing & Function by F.P. Kendall
8. Daniel's & Worthingham's Muscle Testing.
9. Measurement of Joint Motion: A guide to goniometry by C.C. Norkin & D. J. White
10. Principle of Exercise Therapy by Dena Gardiner.

SCHEME OF UNIVERSITY EXAMINATION:

Distribution of maximum marks for the subject having 100 marks shall be as follows:

University exam-80 marks, Internal assessment- 20 marks.

Internal Assessment: As per University pattern, one exam at the end of each term. Average of total marks obtained to be considered for internal assessment.

Duration of paper: 3 Hours.

Scheme of theory exam to be conducted out of 80 marks:

Section	Type of Question	Marks
A **SAQ (50Marks)**	Q-1 SAQ's-Answer any FIVE out of SIX Q-2 SAQ's-Answer any FIVE out of SIX	(5x3) =15 Marks. (5x7) =35 Marks
B **LAQ (30 Marks)**	Q-3 LAQ's-Answer any ONE out of TWO Q-4 LAQ's-Answer any ONE out of TWO	(1x15) =15Marks. (1x15) =15Marks
TOTAL		**80**

SyllRev I

PRACTICAL EXAMINATION:

Total marks 100,

University Exam 80, Internal Assessment.-20

Internal Assessment: One exam at the end of each term. Average of total marks

obtained to be considered for Internal Assessment.

The distribution of marks for practical exam at University to be conducted out of 80 marks:

Section	Type of Question	Marks Distribution
A.	Job Analysis	20 marks
B.	Tools, Equipment and Material Identification	20 marks
C.	Splint paper pattern	20 marks
D.	Viva Voce	15 marks
E	Communication Skills	05 marks

First BOTh

Transcript hours

Headings and Definitions:

Didactic:

Didactic teaching involves class room teaching on theory topics to build the foundations and concepts in clinical practice.

Practicum/Practical/ Lab work/Reflective writing:

Practicum: Topics in the form of seminars prepared by students and presented in the class room to elicit interactive discussions, deliberations and clinical reasoning. Simulated case discussions related to restriction in performance components, adaptations and gradations of activities are emphasized during these sessions.

Practical: Are hands on sessions using techniques and procedures practiced on peers, models or patients under supervision to understand, establish and refine professional skills delivery. Includes class room demonstrations, clinical case presentations and discussions, practice on human models, peers and subjects under supervision; also includes activity analysis, job analysis, practical in ROM, Muscle Power and other practice of other performance components.

Labs: Are actual hands on techniques, procedures on patients, peers or models in the clinics or classrooms to identify, deduct, interpret and measure results, may include lab procedures and recording of the same.

Will include laboratory work in the subjects listed, bed side clinical discussions pertinent to signs and symptoms, by inspection and palpation under one to one supervision or in groups.

Reflective writing: Includes journal writing, log book maintenance; in the clinical field work includes writing of case records, evaluations, goals, intervention plans, any therapeutic procedures.

Clinical Field work:

Students work in clinical field work areas Supervised by a faculty or clinical supervisor.

Includes –

Observation of patients in clinical areas of Occupational Therapy as assigned to students; assignment prepare students towards learning the underlying diagnostic procedures related to Occupational Therapy based on the Fundamental principles of Occupational Therapy practice.

Evaluation and assessment of performance components using appropriate and standard tools , identification and grading of normal and abnormal performance components- ROM, Muscle power, tone, co-ordination, endurance, perception, cognition.

Clinical placements are attributed to developing skills in interviewing clients and care givers, chart reviews and record writing of clients, identifying clinical signs and symptoms, identifying functional limitations.

Placements for Clinical field work:

Sr.No	Area of placement	Hours
1	Orthopaedics	45
2	Medicine	45
3	Surgery	45
4	Community &Outpatient department.	55
TOTAL HOURS		190

Mandatory requirements:

Recommended Clinical practice in Occupational therapy under supervision and/or partial supervision of a faculty or clinical supervisor.

During each clinical assignment, the student is expected to focus on measuring objective components of function, viz clinical assessment of Muscle Power & Range of Motion AROM, PROM, FROM apply optional methods of assessing ROM in contra indicated conditions, practice clinical skills to improve ROM on patients , learn measures of preventing joint contractures and soft tissue tightness , indications and prerequisites of fabrication of splints, use of manual techniques and exercises through manual methods , translation of improved components into functional and occupational tasks under the supervision and/or partial supervision of clinical &/or teaching faculty .

Shall practice patient and care giver education on home exercises, maintenance and safety issues.

Shall maintain folders in which prescribed number (Minimum 5) of case records and written assignments shall be documented. The student shall obtain signatures and remarks/grades from respective section in- charge at the end of each clinical posting.

Submission of duly signed Clinical Training Record (C.T.R) will be a prerequisite for examination. This record will be maintained as a proof for clinical field work in the first year and shall be produced as a valid document in any event of submission for the future.

Credits:

10 classroom hours of teaching are equated as one credit.

15 practical/practicum / lab work / reflective writing hours together are equated as one credit

30 hours of supervised clinical field work is equated as one credit hour

Hours And Credits In The First Year .

.

Sr. No.	Subject	Didactics		Practical /Practicum/ labs		Field work		Total	
		Hours	Credithrs/10	Hours	Creditshrs/15	Hours	Credit-hrs/30	Hours	Credits
BOTI/01/A	Human Anatomy	175	17.5	60	4	-	-	235	21.5
BOTI/02/B	Human Physiology	155	15.5	80	5.33	-	-	235	20.8
BOTI/03/C	Biochemistry	46	4.6	04	0.2	-	-	50	4.8
BOTI/04/D	Fundamentals of Occupational Therapy	140	14	210	14	-	-	350	28
BOTI/05/E	Occupational Therapy Diagnostics -I	140	14	200	13.33	-	-	340	27.3
	Field Work Hours	-	-	-	-	190	6.3	190	6.3
	TOTAL							1400	108.77

Signature of Program Director & HOD

Seal of the School

SECOND YEAR B. O. Th.
BACHELOR IN OCCUPATIONAL THERAPY
[REVISED VERSION –I]

Second B.O.Th.

Subject code.	Subject
BOT II/01/A.	Pharmacology
BOT II/02/B.	Pathology and Microbiology
BOT II/03/C.	Psychology
BOT II/04/D.	Ergo therapeutics
BOT II/05/E.	Occupational Therapy Diagnostics -II

Syll Rev I

OBJECTIVES OF THE COURSE

Didactic Objectives: (Cognito –Perceptual)

- Students with basic knowledge of pathological processes involved in disease and injury, the process of recovery, complications related to conditions, precautions regards to clinical presentation and management.
- Information related to microbes and microorganisms, care and precaution with respect to self, towards clients and others, recovery pattern in related diagnoses**.**
- Knowledge of drugs and medications, routes of administration, effects and side effects of medications in various diagnoses.
- Ability to identify psychological factors, during recovery, affecting client performance in therapy ,estimating functional prognosis following disease, injury ,illness at job and in industry.
- Understanding related psychosocial issues in community re-integration process.
- Efficiency to apply knowledge of kinetics, kinematics, biomechanics, bioengineering, for diagnosis of functional incompetence, remediation of performance, adaptive processes in growth and development.
- Skills to diagnose and intervene occupational performance on a scientific basis with a clear understanding of bioengineering , static and dynamic musculo-skeletal kinetics and kinematics, underlying pathological processes, pharmacological influences, psychological and psychosocial influences, normal and abnormal processes of human development.

FIELD WORK II OBJECTIVES: [Cognito- Perceptual -Motor]

- Student will apply Occupational Therapy diagnostics in the functional paradigm:
- Based on the knowledge of performance components, performance areas pertinent to clinical conditions in the above mentioned clinical placements.
- With respect to Field work placements as mentioned above - will screen, evaluate, and assess patients in varied stages of illness for functional restoration.
- With respect to identifying symptoms that limit performance components and performance areas, will plan goals and remediate performance components and performance areas in therapy under partial supervision.
- With focus on preventive and health maintenance programs for functional independence.
- Will apply knowledge of biomechanics, kinetics and kinematics in
- fabrication of splints , adaptive devices ,soft tissue correction and contracture management with demonstration of safety measures , identify indications and contraindications related to each clinical diagnosis, mental ability, cognition and perception levels of clients.
- Will develop concepts to modify recommendations in view of individual client.
- Promote effective communication skills with patients, caregivers and professionals.

Subject code. BOT	Second Year BOTh Subjects	Didactic (Theory Class) Hours	Practical/ Practicum / Labs/ Reflective writing Hours	Total Hours
BOT II/01. A	Pharmacology	50	_	50
BOT II/02. B	Pathology and Microbiology	81	04	85
BOT II/03. C	Psychology	100	05	105
BOT II/04. D	Ergotherapeutics	116	175	291
BOT II/05. E	Occupational Therapy Diagnostics-II	116	175	291
	Supervised Clinical fieldwork	-	-	640
	Total hours			1462

SyllRev1

(BOT II/01/a)PHARMACOLOGY

[DIDACTIC – 50 hours]

COURSE DESCRIPTION:

Course describes the pharmacological components and effects of different drugs prescribed in systemic illnesses, mental health, developmental disorders and other conditions. This course covers the basic knowledge of Pharmacology including side effects and adverse reactions of commonly prescribed drugs, routes of administration, effects and side effects of medications in various diagnoses. Prepares to disseminate information of signs and symptoms observed in rehabilitation sessions subsequent to prescription of medication.

Sr. No.	Topics	Didactic Hours
1	General Pharmacology	04
2	Drugs Acting On C.N.S	10
3	Drugs Used In Psychiatry	01
4	Drugs Acting On Autonomic Nervous System	07
5	Drugs Acting On C.V.S.	07
6	Drugs Acting On Respiratory System	03
7	Chemotherapy Of Neoplastic Diseases	03
8	Antimicrobial Drugs	03
9	Hormones And Related Drugs	08
10	Gastrointestinal Drugs	02
11	Miscellaneous Drugs	01
12	Dermatological Drugs	01
	TOTAL	50

SyllRev

Sr. No.		Topic	Content	Didactic Hours	Practical Hours	Total Hours
A1		**GENERAL PHARMACOLOGY:**				04
			i.Pharmacokinetics. ii. Routes of administration. iii. Adverse drug reaction and reporting. vi. Factors modifying drug effect. (in relation to all listed below)	01 01 01 01	-	
A2		**DRUGS ACTING ON C.N.S:**				10
		Effects on CNS, PNS, co-ordination, involuntary movements in relation to functional performance	i. Introduction. ii. Alcohols + Sedatives & Hypnotics. iii. Anti convulsants. iv. Drug therapy in Parkinsonism. v. Analgesics & antipyretics – especially Gout & R.A. vii. Local anesthetics, counter irritants	 01 02 01 02 03 01	-	
A3		**DRUGS USED IN PSYCHIATRY:**				01
		For adults and children, Psycho-motor effects Relation to mental, cognitive and physical performance.	i.Anxiolytics. ii. Antidepressants. iii. Antipsychotics. iv. Drugs used in substance abuse.	01	-	
A4		**DRUGS ACTING ON AUTONOMIC NERVOUS SYSTEM:**				07
			i. Adrenergic. ii. Cholinergic. iii. Skeletal muscle relaxant.	02 02 03	-	
A5		**DRUGS ACTING ON C.V.S.:**				07

Syll Rev I

		Effects on exercise /performance Control of CCF, remodeling of myocardial tissue and circulation.	i. Antihypertensive. ii. Antianginal-Antiplatelets. iii. Myocardial Infarction- Drugs for CCF. iv. Shock. v. Coagulants and Anticoagulants.	02 02 01 01 01	-	
A6		**DRUGS ACTING ON RESPIRATORY SYSTEM:**				03
		Indications for exercise training, performance with respect to drugs administered.	i. Cough. ii. Bronchial asthma. iii. C.O.P.D.	01 01 01	-	
A7		**CHEMOTHERAPY OF NEOPLASTIC DISEASES:**				03
			Anticancer Drugs.	03	-	
A8		**ANTIMICROBIAL DRUGS:**				03
			i. Anti –Tuberculosis. ii. Drugs for UTI. iii. Leprosy. iv. Antibiotics. v. Antifungal. vi. Antiviral drugs.	03	-	
A9		**HORMONES AND RELATED DRUGS:**				08
		Mode of action of insulin, its relation to exercise, performance and diet Effects of long term use of steroids on immune system, body tissues, exercise and performance.	i. Insulin and oral Anti diabetic drugs. ii. Steroids-Anabolic steroids. iii. Drugs for osteoporosis, Vitamin D, Calcium, Phosphorus. iv. Thyroid & Anti thyroid. v. Estrogen + Progesterone.	02 02 02 01 01	-	
A10		**GASTROINTESTINAL DRUGS:**				02
			i. Drugs for Peptic ulcer. ii. Drugs for Diarrhea, Constipation & Antiemetics.	01 01	-	

Syll Rev I

A11		**MISCELLANEOUS DRUGS:**				01
			Vitamin B, Iron Supplementary drugs- Heamatinics, Vitamin B; Iron, Vitamin – D, Calcium, Phosphorus, Magnesium.	01	-	
A12		**DERMATOLOGICAL DRUGS:**				01
			Scabies, Psoriasis, Local antifungal.	01	-	

RECOMMENDED TEXT BOOKS:

1. Pharmacology for Physiotherapy –PadmajaUdaykumar
2. Pharmacology for Physiotherapist –H. L. Sharma, K. K. Sharma
3. Essentials of Medical Pharmacology – K. D. Tripathi
4. Pharmacology and Pharmacotherapeutics – Dr. R S Satoskar, Dr. Nirmala N. Rege, Dr. S. D. Bhandarkar

SCHEME OF UNIVERSITY EXAMINATION (THEORY ONLY)
THEORY: Total Marks 50
University Exam – 40 marks, Internal Assessment- 10 marks.

Duration of paper 2 hrs

Paper pattern

[There shall be no LAQ in this paper]

	Type of Question	**Marks Distribution**
	Q1 Short Answer Question SAQ (any FIVE out of SIX) Q2 Short Answer Question SAQ (any FIVE out of SIX)	(5x3) = 15 marks (5x5) = 25 marks
	TOTAL	40 Marks

INTERNAL ASSESSMENT:
1. Two exams – Terminal 40 marks and preliminary examination of 40 marks each.
2. Internal Assessment to be calculated out of 10 marks.
3. Internal assessment as per University pattern.

Emphasis should be given to the drugs related to:

- Musculo-skeletal problems.
- Neurological Conditions.
- Cardio-Vascular Conditions.
- Respiratory conditions.
- Pain and inflammatory conditions.
- Psychiatric conditions.
- Pediatric drugs with special reference to BPD, Learning Disability, UMN and LMN lesions.

SyllRev

BOT II/02/B –PATHOLOGY

[DIDACTIC –50 Hours]

COURSE DESCRIPTION:

The course focuses on understanding of pathology of underlying clinical disease states involving the major organ systems and epidemiological issues.

Discusses concepts of cell injury and healing processes related to tissues and organ systems, pathology of tumors, altered morphology in different systemic diseases and conditions.

Educates on recognition of pathological signs and symptoms considered as red flags for serious diseases, problem-solving skills and information about pathological states to decide when referrals to another health care provider or alternative interventions are indicated

Sr. No.	Topics	Didactic Hours
1	General Pathology	04
2	Inflammation & Repair	06
3	Immuno –Pathology	04
4	Circulatory Disturbances	04
5	Pathologic Changes In Vitamin Deficiencies	01
6	Growth Disturbances	04
7	Medical Genetics	01
8	Specific Pathology	10
9	Muscular Disorders	03
10	Neuro-Muscular Junction	01
11	Bone & Joints	05
12	G.I. System	01
13	Endocrine System	02
14	Hepatic Diseases	01
15	Clinical Pathology	03
	TOTAL	50

Syl Rev I

Sr. No.		Topic	Content	Didactic hours	Practical Hours	Total hours
B1		**GENERAL PATHOLOGY**				04
		Cell injury	i. Cell injury-Causes, Mechanism & Toxic injuries with special reference to Physical injuries including Ionizing radiation, Chemical & Biological. ii. Reversible injury (degeneration)-types morphology- Cloudy swelling, hyaline, fatty changes. iii. Intra-cellular Accumulation- Mucin, Protein. iv. Irreversible cell injury-types of necrosis- Apoptosis –Calcification- Dystrophic & Metastasis. v. Extra-cellular accumulation-Amylidosis.	04	-	
B2		**INFLAMMATION & REPAIR:**				06
			i. Acute inflammation – features, causes, vascular &Cellular events. ii. Morphologic variations-Ulcers. iii. Inflammatory cells & Mediators. iv. Chronic inflammation: Causes, Types, Nonspecific & Granulomatous – with examples. v. Wound healing by primary & secondary union, factors promoting & delaying healing process. vi. Healing at various sites- bone, nerve & muscle. vii. Regeneration & Repair.	06	-	
B3		**IMMUNO –PATHOLOGY :**				04
			i. Immune system: organization-cells-antibodies regulation of immune responses. ii. Hyper-sensitivity (types and examples including Graft rejection). iii. Secondary Immuno–deficiency including H.I.V. iv. Basic concepts of autoimmune disease (emphasis on S.L.E. & R.A.).	04	-	

SylRev

B4		**CIRCULATORY DISTURBANCES**				04
			i. Edema– pathogenesis – types – transudates /exudates. ii. Chronic venous congestion- lung, liver. iii. Thrombosis – formation – fate – effects. iv. Embolism – types- clinical effects. v. Infarction – types – common sites. vi. Gangrene – types – etiopathogenesis. vii. Shock – Pathogenesis, types.	04	-	
B5		**PATHOLOGIC CHANGES IN VITAMIN DEFICIENCIES**		01	-	01
B6		**GROWTH DISTURBANCES:**				04
			i. Atrophy, Hypertrophy, Hyperplasia, Metaphase, Agenesis, Dysplasia. ii. Neoplasia classification, Histo–pathogenesis, Biologic Behaviors, difference between Benign & Malignant Tumours. iii. Malignant neoplasms- grades-stages-local & distal spread. iv. Carcinogenesis: Physical, Chemical, Occupational, Heredity, Viral, Nutritional. v. Precancerous lesions & Carcinoma in situ. vi. Tumour & host interactions–local and systemic. Effects-metastatic (special reference to bones and C.N.S.)	04	-	
B7		**MEDICAL GENETICS (IN BRIEF):**				01
			Classifications with examples of Genetic disorders.	01	-	
B8		**SPECIFIC PATHOLOGY:**				10
	a	**C.V.S.**	i. Atherosclerosis, Ischemic Heart Diseases –Myocardial Infarction– Pathogenesis /Pathology. ii. Hypertension. iii. C.C.F. iv. Rheumatic Heart Diseases. v. Peripheral Vascular Diseases.	03	-	

SyllRev

	b	**Respiratory**	i. C.O.P.D. ii. Pneumonia (lobar, bronchial, viral), Lung Abscess. iii. T. B.: Primary, Secondary – morphologic types. iv. Pleuritis & its complications. v. Lung collapse – Atelectasis. vi. Occupational Lung diseases. (with special emphasis on Silicosis, Asbestosis, Anthracosis). vii. A.R.D.S.	03	-	
	c	**Neuropathology**	i. Reaction of nervous tissue to injury, infection & Ischemia. ii. Meningitis: Pyogenic, T.B.M., Viral. iii. Cerebro-Vascular Diseases – Atherosclerosis, Thrombosis, Embolism, Aneurysm, Hypoxia, Infarction & Hemorrhage, Hydrocephalous, Increased Intracranial Pressure. iv. Leprosy. v. Parkinsonism.	04	-	
B9		**MUSCULAR DISORDERS:**				03
			Classification of Muscular disorders with emphasis on Muscular Dystrophies.	03	-	
B10		**NEURO-MUSCULAR JUNCTION:**				01
			i. Myasthenia gravis. ii Myasthenic syndrome.	01	-	
B11		**BONE & JOINTS:**				05
			i. Osteomyelitis – Rickets – Osteomalacia, Osteoporosis. ii. Arthritis- Degenerative (Osteoarthritis, Calcaneal Spur, Periarthritis, Spondylosis) Inflammatory- (R.A., Ankylosing Spondylitis, Gout). iii. Miscellaneous-P.I.D., Haemarthosis. iv. Infective-T.B.	05	-	
B12		**G.I. SYSTEM:**				01
			Gastric / Duodenal ulcer. Enteric fever, T.B., Enteritis, Gastritis (related to consumption of NSAID).	01	-	
B13		**ENDOCRINE SYSTEM**				02

SMRev

			i. Hypo and Hyperthyroidism. ii. Diabetes.	02	-	
B14		**HEPATIC DISEASES:**				01
			Cirrhosis – emphasis to systemic effects of portal Hypertension.	01	-	
B15		**CLINICAL PATHOLOGY:**				03
			i. Anemia – (deficiency) – Total Count/Differential Count/ Eosinophilia Anaemia. ii. Muscle / Skin / Nerve biopsy. iii. Microscopic appearance of muscle necrosis – fatty infiltration.	03	-	

RECOMMENDED TEXT BOOKS

1. Text book of Pathology –Harsh Mohan
2. Basic Pathology-Robbins

RECOMMENDED REFERENCE BOOKS

1. Pathologic basis of disease –Cotran, Kumar, Robbins
2. General Pathology – Bhende

SCHEME OF UNIVERSITY EXAMINATION:

Examination combined with Microbiology subject.

SylRev I

BOT II/02/B –MICROBIOLOGY

(Didactic-31hours + Demonstration -4hours) TOTAL 35 Hours

COURSE DESCRIPTION:

The course is attributed towards having a sound knowledge of prevalent communicable diseases and the agents responsible for causing clinical infections, pertaining to C.N.S, C.V.S, Musculoskeletal system, Respiratory System, Genitourinary system, wound infections and of newer emerging pathogens.

Educates on the importance and practices of best methods to prevent the development of infections in self and patients (universal safety precautions).

Sr.No.	Topics	Didactic Hours	Demonstration Hours	Total Hours
1	General Microbiology	4	1	5
2	Laboratory Diagnosis Of Infection	2	1	3
3	Immunology	5	-	5
4	Systemic Bacteriology	7	-	7
5	Mycology	2	1	3
6	Virology	5	-	5
7	Parasitology	3	1	4
8	Applied Microbiology	3	-	3
	TOTAL	31	4	35

Syll Rev

Sr. No.		Topic	Content	Didactic hours	Practical Hours	Total hours
B1		**GENERAL MICROBIOLOGY:**				05
			i. Introduction& scope. ii. Classification of Micro-organisms and Bacterial Anatomy (cell wall, Capsule, spore, flagella and types as per their shape and arrangement). iii. Sterilization. iv. Disinfection. v. Demonstration for General Microbiology.	04	01	
B2		**LABORATORY DIAGNOSIS OF INFECTION:**				03
			i. Media and identification of Bacteria. ii. Sample collection for smear Examination and cultures. iii. Demonstration of Gram staining, and culture media.	02	01	
B3		**IMMUNOLOGY:**				05
			i. Innate immunity & acquired immunity. ii. Structure and function of immune. System and Immune response – Normal / abnormal. iii. Define Antigen, Antibody and Antigen-antibody reaction & application for diagnosis. iv. Hyper – sensitivity. v. Auto-immunity.	05	-	
B4		**SYSTEMIC BACTERIOLOGY:**				07
			i. Infections caused by gram positive cocci- Staphylococcus, Streptococcus and Pneumococcus. ii. Infections caused by gram negative cocci- Gonococci and Meningococci. iii. Clostridium. iv. Enterobacteriaceae (E.Coli, Klebsiella) and Pseudomonas. v. Salmonella and Vibrio. vi. Mycobacterium infection : Tuberculosis-Leprosy Atypical Mycobacterium. vii. Syphilis and Leptospirosis- Morphology & pathogenesis.	07	-	

B5		**MYCOLOGY:**				03
			i. Introduction and Superficial mycosis. ii. Mycetoma and opportunistic fungal Infection. iii. Mycology and Virology demonstration.	02	01	
B6		**VIROLOGY:**				05
			i. Introduction& general properties. ii. DNA virus. iii. Measles, Mumps, Rubella, polio and Congenital viral infections. iv. Hepatitis and Rabies. v. H.I.V.	05	-	
B7		**PARASITOLOGY:**				04
			i. Introduction- Entamoebahistolytica. ii. Malaria, Filaria. iii. Toxoplasma – Cystisarcosis & Echinococcus.	03	01	
B8		**APPLIED MICROBIOLOGY:**				03
			i. Hospital acquired infections, Universal safety precautions and Waste disposal. ii. Diseases involving Bones, Joints-Nerves-Muscles-Skin-Brain-Cardiopulmonary system, Burn and Wound infections.	03	-	

RECOMMENDED TEXT BOOKS

1. Concise Textbook of Microbiology –Ananthnarayan
2. Concise Textbook of Microbiology –C.P.Baweja
3. Textbook of Microbiology –Nagoba

RECOMMENDED REFERENCE BOOK

Text books of Microbiology – R. Ananthnarayan& C.K. Jayrampanikar

SyllRev

SCHEME OF UNIVERSITY EXAMINATION (THEORY ONLY)
THEORY

Section	**Type of Question**	**Marks Distribution**
A Pathology	Q 1 -Short Answer Questions any FIVE out of SIX Q 2- Long Answer Questions any ONE out of TWO	(5x7) = 35 Marks (1x15) = 15 Marks
B Microbiology	Q 3 - Short Answer Questions any THREE out of FOUR Q 4- Long Answer Questions any ONE out of TWO	(3x5) = 15 Marks (1x15) = 15 Marks
	TOTAL	80 Marks

INTERNAL ASSESSMENT:
Two exams – Terminal and preliminary examination of 80 marks each
TOTAL – 160 marks
Internal Assessment to be calculated out of 20 marks
Internal assessment as per University pattern

Syll Rev I

BOT II/03/C –PSYCHOLOGY

(Didactic-100 hours + Practical – 5hours) TOTAL 105 Hours

COURSE DESCRIPTION:

Introduces the concepts of normal and abnormal Psychology in context to human development, growth & alterations in human development, & alterations during illness, injury, aging process. The course design increases awareness of psychological, psychosocial issues faced by individuals, their significance at various points on the continuum of health and disability. The course discusses personal and professional attitudes and values as they relate to developing therapeutic relationships. It educates to identify behaviors in phases of life, guides observational strategies for change in behaviors in relation to Medical Therapy and O.T. Intervention. It emphasizes on communication skills for effective interaction with patients, health-care professionals and others.

Sr.No.	Topics	Didactic Hours	Demonstration Hours	Total Hours
1	General psychology	55	0	55
2	Developmental psychology	20	0	20
3	Abnormal psychology	20	0	20
4	Experimental psychology:	0	5	5
5	Industrial & sports psychology	5	0	5
	Total hours	100	05	105

SylRev

Sr. no.		Topic	Content	Didactic hours	Practical Hours	Total hours
C1		**GENERAL PSYCHOLOGY**				55
	a	**Introduction to psychology**		02	-	
	b	**Fields of psychology, schools of thoughts.**		05	-	
	c	**Attention**	Definition & its type.	03	-	
	d	**Perception**	Form perception, depth perception, constancy, Movement, plasticity & individual differences in perception.	05	-	
	e	**Stress**	Types, Stress cycles & coping with stress.	03	-	
	f	**Feeling & emotion**	Physiology & theories of emotion	03	-	
	g	**Motivation**	Theories of motivation, different types of motives and sources of conflicts and adjustment.	05	-	
	h	**Personality**	Theories of personality & types of assessments of personality.	05	-	
	i	**Communication & language**	.	04	-	
	j	**Intelligence-**	Nature & theories of intelligence, individual Differences and enumerate types of assessments of intelligence.	05	-	
	k	**Memory & retention –**	Theories of memory, short term & long term Memory, forgetting, amnesia, methods of improving memory.	05		
	l	**Human learning**	Definition of learning & basic principles of human learning.	05		
	m	**Thinking –**	Thinking process, concepts, problem solving, decision Making and creative thinking.	05		

C2		**DEVELOPMENTAL PSYCHOLOGY**				20
	a		1. Introduction to developmental theories. 2. Individual differences in behavior. 3. Influence of heredity & environment. 4. Infancy. 5. The early childhood 6. The middle childhood. 7. Puberty – physiological & psychological changes. 8. The adolescent state. 9. Early & middle adulthood. 10. Old age.	02 02 02 02 02 02 02 02 02 02		
C3		**ABNORMAL PSYCHOLOGY**				20
	a		1. Meaning of abnormal behavior. 2. Classification of abnormal behavior. 3. Causal factors in abnormal behavior	06 06 08		
C4		**EXPERIMENTAL PSYCHOLOGY:**				05
	a		Mechanics of brain & neuropsychological experiments on sensory system, learning & retention, memory, perception, emotion, motor behavior & reaction time, Motivation & rewards, attention.		05	
C5		**INDUSTRIAL & SPORTS PSYCHOLOGY**		05		05

BOOKS RECOMMENDED

Introduction to Psychology by C.T. Morgan, R.A. King

Developmental Psychology by Hurlock C.

Abnormal psychology & modern life by R.C. Carson, J.N. Butcher

Experimental Psychology A Laboratory Manual by E.G. Parameshwaran & K Ravichandra.

SCHEME OF THEORY EXAMINATION – PSYCHOLOGY

Distribution of maximum marks for the subject having 100 marks shall be as follows:

University exam – 80 marks; Internal Assessment – 20 marks.

SyllRev

Internal Assessment: One exam at the end of each term. Average of total marks obtained to be considered for Internal Assessment.

Duration of papers: 3 Hours

Scheme of theory exam to be conducted out of 80 marks:

Section	**Type of Question**	**Marks Distribution**
A	Q 1 - Short Answer Questions any FIVE out of SIX	(5x3) = 15 Marks
	Q 2 - Short Answer Questions any FIVE out of SIX	(5x7) = 35 Marks
B	Q 3 - Long Answer Questions any ONE out of TWO	(1x15)= 15 Marks
	Q 4 - Long Answer Questions any ONE out of TWO	(1x15)= 15 Marks
	TOTAL	80 Marks

Syll Rev I

BOT II/04/D –ERGOTHERAPEUTICS
(Didactic-116 hours + Practical -175 hours) TOTAL 291 HOURS

COURSE DESCRIPTION:

Introduces theoretical and practical aspects towards use of diagnostic tools in OT, reinforces the process of structured observation to build documentation skills, focuses on the development of conceptual basis of practice; biomechanical, kinesiology and kinematic aspects of human motion, posture and balance for mobility, transfers. Introduces assessment procedures for muscle power, strength and compensatory mechanisms used during functional performance. It emphasizes the importance of normal human movements as they relate to human function in Occupational Roles.

Sr.No.	Topics	Didactic Hours	Practical Hours	Total Hours
1	Conceptual Basis For Practice	8	3	11
2	Biomechanics	9	0	9
A	Kinetics-	15	12	27
B	Kinematics	5	0	5
3	Biomechanics Of Joints And Applied Kinesiology	46	40	86
4	Posture	05	10	15
5	Balance	05	15	20
6	Mobility Skills: The Occupational Therapy Perspective	13	55	68
7	Muscle Strength (Individual)	05	30	35
8	Vicarious Movements	05	10	15
	TOTAL HOURS	116	175	291

SYLLABUS

Sr no		Topic	Content	Didactic Hours	Practical Hours	Total Hours
D 1		**CONCEPTUAL BASIS FOR PRACTICE:**				11
D1	a	Theory and practice in OT	Definitions of commonly used terms. Scope of practice. Relation between theory and practice. Intellectual heritage Definition- Person, Environment , Occupation/task, Occupational performance. Intervention strategies.	02		
	b	Ecological Models in Occupational Therapy	Assumptions of Ecological models. Application to practice.	01		
	c	Model of Human Occupation(MOHO)	Concepts using MOHO in practice- 6 steps of therapeutic reasoning. Therapeutic strategies identified by MOHO. Betty OCAIRS Rating.	02		
	d	Theory Of Occupational Adaptation	Intellectual heritage. Assumptions of Occupational Adaptation theory. Introduction to practice based on Occupational Adaptation Theory. Therapeutic reasoning process base on theory of Occupational Adaptation.	01		
	E	Practicum /Practical/Labs: Applications of 6 steps Based on therapeutic reasoning, Betty OCAIRS rating.	Demonstration, audio –visual presentations, simulated and or clinical presentations, practice on models, peer practice.	02	03	
D2		**BIOMECHANICS:**				09
		Essential Terms Classification of Mechanics	General concepts Statics, -dynamics Kinematics, kinetics. Definition. Applications of biomechanics in occupational therapy.	09		

	A	**Kinetics-**				**27**
	a.	Force and Force Systems	Definition, types of force systems. Classification of force system – linear, parallel, concurrent, general,. Examples of each with application to occupational therapy. Internally generated forces, externally applied forces. Composition and resolution of forces with examples. Moment torque &couple. Friction and its practical application in the human body.	05		
		Practicum /Practical/Labs: Demonstration using Simulated and clinical case examples Interactive discussions based on clinical reasoning- on above.	Practicum Moment, Torque, Couple and Friction.		03	
	b.	Newton's Laws Of Motion	Three laws of motion. Description with examples of each related to occupational therapy.	03		
		Practicum /Practical/Labs: Demonstration clinical and simulated case presentations , interactive sessions .	Labs: Examples and demonstrations on daily activities in life explaining each law of motion. Walking on horizontal surface, inclined surfaces, moving belt, stationary surfaces.		03	
	c.	Center of Gravity	Body mass. Center of gravity with respect to body mass. Centre of gravity and its application in human body with respect to change in body mechanics and function.	03		
		Practicum /Practical/Labs: Demonstrations- audio-visuals, clinical cases and models, interactive sessions	Static and dynamic sitting Static and dynamic standing. Forward bending with small base of support, broad base of support Changes in center of gravity with respect to change in positions, static and dynamic states of the body, applications in clinical settings and activities of daily living .		03	
	d.	Levers	Classification. Physiological significance of trade-off of mechanical advantage. Examples in human body.	03		

		Practicum /Practical/Labs: Practice on peers, models, clients, interactive sessions & demonstration.	Applications with reference to human performance in daily life- lifting, pulling, pushing, mechanical advantage in tasks with respect to reduced ROM and strength, joint pathology.		03	
	e.	Equilibrium	Definition of static and dynamic equilibrium with examples.	01		
	B	**Kinematics:**				**05**
			.Planes of human body. Types of motion – linear / translatory / rotatory / angular, curvilinear /general plane motion. Open & close kinematic chain motion. Application of kinematics in occupational therapy.	05		
D3		**BIOMECHANICS OF JOINTS AND APPLIED KINESIOLOGY:**				86
	a	Upper extremity, (shoulder and scapula-humeral complex, Elbow & radioulnar complex, Wrist and hand complex.)	Joint classification. Applied anatomy of articulating surfaces. Soft tissue structures related to joints- joint capsule, Muscles and ligaments. Mechanics of the bone and soft tissue components involved during static, dynamic conditions of the joints. Alteration in mechanics following injury & pathological states.	20		
	b	Lower extremity joints: Hip complex and pelvic complex. Knee joint and patellar complex. Ankle and foot complex.	Joint classification, Applied anatomy of articulating surfaces. Soft tissue structures related to joints- joint capsule, Muscles and ligaments. Mechanics of the bone and soft tissue components involved during static, dynamic conditions of the joints. Alteration in mechanics following injury. Pathological states.	20		

Syllabus

		Practicum /Practical/Labs: Demonstration, clinical and simulated case presentations, audio-visual presentations, interactive sessions, peer practice related to altered mechanics in intra capsular injuries. Upper extremity Lower extremity	Biomechanics and applied kinesiology in-upper & lower extremity		32	
		Spine	General structure and function of spine. Muscles of vertebral column.	05		
		Practicum /Practical/Labs: Demonstration, clinical and simulated case presentations, audio-visual presentations, interactive sessions.	Biomechanics and applied kinesiology in tasks- forward bending, side ward bending, rotation. Hip pelvic stability and mobility in tasks.		06	
	d	Temporo - mandibular Joint	General structure and function of temporo-mandibular joint. Articular surfaces capsule, muscles and movement. Biting, chewing, articulation, reduced ROM, strength.	01		
		Practicum /Practical/Labs: Demonstration, clinical and simulated case presentations, audio-visual presentations, interactive sessions.	Biomechanics and applied kinesiology in tasks of Biting, chewing, articulation.		02	
D4		**POSTURE :**				15
	a	Posture	Definition of normal posture. Anatomical posture. Define Abnormal posture. Define Anterior, posterior, lateral deviations with respect to normal alignment of spine. Define anterior, posterior lateral tilts, pelvic obliquity**.**	05		

SYLREV

			Deformities and abnormal posturing in lower and upper body that affect postural mechanics. Factors Affecting Posture: Spinal alignment. Pelvic alignment. Factors affecting seating. Musculoskeletal Tone.			
		Practicum /Practical/Labs: Demonstrations, clinical and simulated case presentations on models and clinical diagnosis using audio-visuals.	Assess deviations in the antero-posterior planes, lateral deviations in sitting and standing. Assess normal pelvic alignment and deviations. Effect of anterior posterior tilts, pelvic obliquity on seating. Extensor thrust and effect on seating. Spinal deformities Pelvic alignment- Effect on seating.		10	
D5		**BALANCE:**				20
		Balance	Definition. Static and dynamic balance. Balance in sitting and standing. .Balance rating with respect to static and dynamic states. Administration of a standard scale [berg balance scale.	05		
		Practicum /Practical/Labs: Demonstrations, Clinical And Simulated Case Presentations On Models And Clinical Diagnosis Using Audio-Visuals.	Demonstration of stability and static & dynamic balance in sitting and standing. Identification of balance strategies in task simulated cases on audio visuals. Grade static and dynamic balance in sitting, standing during tasks. Administer a berg balance in a patient with limitations in ADL		15	
D6		**MOBILITY SKILLS: THE OCCUPATIONAL THERAPY PERSPECTIVE:**				68
	a		Definition, types, indications Contraindications for mobility training.	01		
	b	Bed mobility	Precursor to transfers and mobility. Bed mobility for preparation of transfers.	01		

SyllRev

	c	Transfer	Definition. Types. Guidelines for using proper body mechanics. Principles of body positioning. • Stand pivot transfer • Sliding board transfer • Bent pivot transfer • Dependent transfers	03		
		Practicum /Practical/Labs: Demonstrations under supervision on clinical conditions. Simulated case presentations using audio-visuals and/ or practice on models, peers.	Bed mobility. Each of the transfer techniques on normal		25	
	d	Gait	Normal human gait cycle parameters. Myokinetics and Kinematics of gait. Stair gait, running, Common gait deviations and analysis. Types of crutch and cane gaits. Preparatory exercises for crutch and cane walking.	08		
		Practicum /Practical/Labs: Demonstrations, clinical and simulated case presentations on models and clinical diagnosis using audio-visuals.	Demonstration of types of crutch gaits, visual analysis of normal gait, identification and analysis of pathological gaits- • Antalgic gait • Hemiplegic gait • Trendelenburg gait • Stiff- joint gait. • High steppage gait • Festinating/shuffling gait • Scissoring gait • Ataxic gait • Waddling gait		30	
D7		**MUSCLE STRENGTH:**				**35**
	a		Individual muscle testing in normal and clinical conditions. (muscles of upper extremity, Lower Extremity, Spinal ,Abdominal muscles)	05		

		Practicum /Practical/Labs: Demonstrations, simulated case presentations on models and clinical diagnosis using audio-visuals, practice on peers, models and patients under supervision.	Learn and perform individual muscle testing on normal and patients in upper and lower extremities, spine and abdomen Identify strength in functional tasks.		30	
D8		**VICARIOUS MOVEMENTS:**				15
	a		.Definition, Types Description of the same in: • Radial Nerve Palsy • Ulnar Nerve Palsy • Median Nerve Palsy • Lateral popliteal nerve Palsy	05		
		Practicum /Practical/Labs Demonstrations, clinical and audio-visual case presentations interactive sessions Identification of vicarious movements.	Vicarious movements on patients in: • Radial Nerve Palsy • Ulnar Nerve Palsy • Median Nerve Palsy • Lateral popliteal nerve Palsy		10	

BOOKS RECOMMENDED

Occupational Therapy by Willard & Spackman.

Occupational Therapy: Practice skills for Physical Dysfunction by L.V. Pedretti

Occupational Therapy for Physical Dysfunction by C.A. Trombly.

Joint Structure and Function – A Comprehensive Analysis by C.C. Norkin, P.K.

Levangie,

Physiology of joint & joint motion by Kapandji I. A.

Therapeutic exercise by J. Basmajian

Biomechanics of human motion by Williams Lissner

Measurement of joint motion: a guide to goniometry by C.C. Norkin& D.J. White

Therapeutic exercise – Foundations and Techniques by C. Kisner& L. A. Colby

Occupational Therapy & Physical Dysfunction by A. Turner

Muscle testing and function by F.P. Kendall

Daniel's & Worthingham's Muscle testing.

Physical Rehabilitation Assessment & Treatment by O'sullivan.

SCHEME OF THEORY EXAMINATION: ERGOTHERAPEUTICS

Distribution of maximum marks for the subject having 100 marks shall be as follows:

University exam - 80 marks, Internal Assessment - 20 marks.

Internal Assessment: One exam at the end of each term. Average of total marks obtained to be considered for Internal Assessment.

Duration of papers: 3 Hours

Scheme of theory exam to be conducted out of 80 marks:

Section	**Type of Question**	**Marks of Distribution**
A	Q 1 - Short Answer Questions any FIVE out of SIX Q 2 - Short Answer Questions any FIVE out of SIX	(5x3) = 15 Marks (5x7) = 35 Marks
B	Q 3 - Long Answer Questions any ONE out of TWO Q 4 - Long Answer Questions any ONE out of TWO	(1x15)= 15 Marks (1x15)= 15 Marks
	TOTAL	80 Marks

PRACTICAL EXAMINATION:

Total marks 100,

University Exam 80, Internal Assessment.-20

Internal Assessment: One exam at the end of each term. Average of total marks obtained to be considered for Internal Assessment.

The distribution of marks for University exam to be conducted out of 80 marks:

Section	**Type of Question**	**Marks Distribution**
A.	Individual Muscle testing	20 marks
B.	Demonstration of transfers on normal	20 marks
C.	Gait analysis	20 marks
D.	Viva Voce	15 marks
E	Communication Skills	05 marks

SYLLABUS REVISED

BOT II/05/E –OCCUPATIONAL THERAPY DIAGNOSTICS II

(Didactic-116 hours + Practical -175 hours)TOTAL 291 HOURS

Course Description:

Course explores major theories and frameworks underlying contemporary OT Practice, presents theoretical construct of Purposeful Occupational Activity and Occupational Science. It focuses on methods, Medias and modalities used in the intervention process. It builds concepts of intervention strategies that can be used to improve on performance components, performance areas to enable fitness and participation in contextual roles. It emphasizes on therapeutic applications in Occupational Therapy based on human development and adaptation, treatment approaches incorporating neurophysiologic principles, critical analysis of biomechanical and kinesiology approaches in prescription of orthotic devices.

Sr.No.	Topics	Didactic Hours	Practical Hours	Total Hours
1	Theoretical Foundation Of Human Development	20	0	20
2	Spatiotemporal Adaptation	15	05	20
3	Treatment Approaches	30	20	50
4	Hand Function Tests	15	30	45
5	Functional Bracing	07	10	17
6	Play In Child Development	05	0	05
7	Adaptation	02	45	47
8	Orthosis	10	55	65
9	Physical Agent Modalities	12	10	22
	TOTAL HOURS	**116**	**175**	**291**

Sr no		Topic	Content	Didactic hours	Practical Hours	Total hours
E1		**THEORETICAL FOUNDATION OF HUMAN DEVELOPMENT:**				
	a		Learning Theories: Behavioral Theory, Social learning theory; Maturation theory of Arnold, Gesell, Psychoanalytic theory of Sigmund Freud, Erik Erikson theory Cognitive Theory of Jean Piaget; Humanistic self theory Ethology theory	20		20
E2		**SPATIOTEMPORAL ADAPTATION:**				20
	a		Theory of spatiotemporal Adaptations: Sensory –motor Sensory Integration. Reflex and reaction maturation. Stability & mobility development.	15		
		Practicum /Practical/Labs	Demonstration of reflex & Reactions Theory of spatiotemporal adaptation Applications in occupational therapy intervention.		05	
E3		**TREATMENT APPROACHES:**				50
	a	Sensory Motor treatment Approaches(Rood's& PNF Therapy), Neuro developmental treatment Approach (Bobath's) Movement Therapy (Brunnstom's) Overview of Sensory integrative approach. Motor Control Theories & Techniques(Carr &Shepherd's approach)	Theory, concepts and principles of practice based on clinical reasoning. Applications in task performance.	30		

		Practicum /Practical/Labs: Hands on practice on peers, or clients under supervision, interactive sessions following clinical and/or simulated audio-visual presentations.	Demonstration of each treatment approach incorporated in a task performance.		20	
E4		**HAND FUNCTION TESTS:**				45
	a	Hand Function Test	Identification of Evaluation Tools. Procedures of evaluation. Indications & Applications in variety of conditions. • Jebson Taylor Hand Function Test • Crawford small part dexterity test. • Purdue Peg board. • Complete Minnesota dexterity test.	15		
		Practicum /Practical/Labs: Demonstration on one model, one industrial injury. Interactive session based on clinical reasoning.	• Jebson Taylor Hand Function Test • Crawford small part dexterity test. • Purdue Peg board. • Complete Minnesota dexterity test.		30	
E5		**FUNCTIONAL CAST BRACING:**				17
	a	Functional cast Bracing	Definition, concept, principles of functional cast bracing. Scientific basis and Objectives of functional bracing. Importance in healing of fractures. Advantages over conventional bracing. Materials used. Indications & contraindications of functional bracing.	07		
		Practicum/Practical /Labs : Demonstration of Paper patterns for commonly used braces. Clinical and simulated presentations using audio-visuals, interactive sessions on clinical reasoning.	Functional Cast Braces for- • Forearm. • Arm. • Femur. • Tibia.		10	

Shirley

E6		**PLAY IN CHILD DEVELOPMENT:**				
	a	Play	Functions of Play – Social, Physical, Sensory, Emotional, Perceptual, Cognitive. Content & structure of play. Theories of play – E. Erikson, A. Freud, J. Piaget, Reilly. Role of play in Occupational Therapy treatment process.	05		05
E7		**ADAPTATION:**				
	a	Adaptation process- Process by which person maintains useful relationship to environment.	Definition. Content of adaptive process. Needs assessment for adaptive devices.	02		47
		Practical/Reflective writing/Labs: Demonstration Fabrication Clinical reasoning for need based assessment	Adaptive devices: • Universal cuff. • Writing device. • Long handled scrubber. • Built up handle spoon. • Dressing Stick.		40	
		Reflective Writing	Journal writing		05	
E8		**ORTHOSIS:**				
	a		Explain and apply general principles of splinting while designing and fabrication of Common Upper /Lower Extremity orthotics. Indications and contraindications of splinting- upper /lower Extremity Orthosis viz. • Resting pan Splint, • Short Opponens Splint. • Dynamic Extension Outrigger splint. • Finger gutter Splint. • Radial Bar Cock Up	10		65
		Practical/Reflective writing/Labs: Demonstration Designing & Fabrication Clinical reasoning for need based assessment.	Splints- • Resting pan Splint, • Short Opponens Splint. • Dynamic Extension Outrigger splint. • Finger gutter Splint. • Radial Bar Cock up		50	
		Reflective Writing	Journal Writing		05	

Syllabus

BOOKS RECOMMENDED

E9		**PHYSICAL AGENT MODALITIES:**				22
	a	Use of Physical agent Modalities as an adjunct to enhance performance components in ADL & participation in occupational performance	Theory & concept in use of PAM Principles of applied physics, tissue & nerve electro potentials, conductivity. Indications & contra indications in clinical conditions.	06		
	b	Types of Modalities	Superficial thermal Agents Deep thermal Agents Cryotherapy Electrical Modalities: Diathermy, transcutaneous Electrical stimulation(TENS), Inferential Faradic current, Neuromuscular Electrical stimulation(NMES), Ultra sound	06		
		Practicum /Practical/Labs: Demonstration Hands on practice on peers, models, clients under supervision, interactive sessions following clinical and/or simulated audio visual presentations	Practical introduction to equipment & components for safe use		10	

Occupational Therapy Willard & Spackman's

An Introduction to Occupational Therapy by A. Turner

Occupational Therapy: Practice skills for Physical Dysfunction by L.V. Pedretti

Occupational Therapy for Physical Dysfunction by C.A. Trombly.

Closed functional treatment of fractures by A Sarmiento, L. Latta

Hand & upper extremity splinting: Principles & methods by E.E. Fess, C. A. Phillips, Gettle K.S., & Jansonj.

SCHEME OF THEORY EXAMINATION – OCCUPATIONAL THERAPY DIAGNOSTICS II

Distribution of maximum marks for the subject having 100 marks shall be as follows:

University exam - 80 marks Internal Assessment - 20 marks.

Internal Assessment: One exam at the end of each term. Average of total marks obtained to be considered for Internal Assessment.

Duration of papers: 3 Hours

Scheme of theory exam to be conducted out of 80 marks:

Section	Type of Question	Marks Distribution
A SAQ	Q 1 - Short Answer Questions any FIVE out of SIX Q 2 - Short Answer Questions any FIVE out of SIX	(5x3) = 15 Marks (5x7) = 35 Marks
B LAQ	Q 3 - Long Answer Questions any ONE out of TWO Q 4 - Long Answer Questions any ONE out of TWO	(1x15)= 15 Marks (1x15)= 15 Marks
	TOTAL	80 Marks

PRACTICAL EXAMINATION:

Total marks 100, University Exam out of 80.

Internal Assessment: One exam at the end of each term.

Average of total marks obtained to be considered for Internal Assessment.

The distribution of marks for practical exam at University to be conducted out of 80 marks:

Section	Type of Question	Marks Distribution
A.	Orthotic Fabrication	20 marks
B.	Adaptive devices Fabrication	20 marks
C.	Hand function tests	20 marks
D.	Viva Voce	15 marks
E	Communication Skills	05 marks

Syl Rev I

Second BOTh

Transcript hours

Headings and Definitions:

Didactic:

Didactic teaching involves class room teaching on theory topics to build the foundations and concepts in clinical practice.

Practical: Are hands on sessions practiced on peers, models or patients under supervision**.**

Practicum: Topics in the form of seminars prepared by students and presented in the class room to elicit interactive discussions, clinical reasoning.

Labs: Are actual practice sessions on patients, peers or models to interpret results, may include lab procedures.

Reflective writing: includes journal writing, log book maintenance; in the clinical field work includes writing of case records, evaluations, goals, intervention plans, therapeutic procedures in intervention**.**

Clinical Field work:

Actual clinical work in clinical setting, involves patient, evaluation, assessment, goal writing for performance components and intervention procedures, patient and family education under supervision of faculty or clinical supervisor. Reflective writing pertaining to individual cases may be considered as a part of field work.

The second year includes:

Laboratory work as listed in the given subjects listed, journal writing, reflective writing, class room demonstrations, clinical case presentations and discussions, practice on human models, stimulatory case discussions related to restriction in performance components, adaptations and gradations of activities, bed side clinical discussions pertinent to signs and symptoms, by inspection and palpation under supervision, practices in muscle power, transfers, posture, gait analysis, adaptive ADL, adaptive devices, application of Occupational Therapy tools as diagnostic to Occupational Functioning hand function evaluation and testing,.
Students work in clinical areas Supervised by a faculty or clinical supervisor.
Includes –
Observation of patients in clinical areas as assigned to students, related to Ergo therapeutics I & Ergo therapeutics II
Evaluation and assessment of performance components using appropriate and standard tools for joint range, muscle power; identification of alteration in tone, co-ordination, endurance, balance, perception & cognition.
Developing skills in interviewing clients and care givers, chart reviews and record writing of clients, identifying clinical signs and symptoms, identifying functional limitations, goal planning for short term goals.

Placements for Clinical field work II practice:
Occupational Therapy applications in-
Recommended Clinical practice in Occupational therapy under supervision and/or partial supervision of a faculty or clinical supervisor.

Supervised Clinical Field Work (Total: 640 Hours)			
S. No.	**Assignments/Clinical Fieldwork Postings**	**Total Hours**	**Total Duration in weeks**
1.	Orthopedic	125	7 weeks
2.	Community & Out Patient Department	140	8 weeks
3.	Psychiatry	125	7 weeks
4.	Medicine	125	7 weeks
5.	Surgery	125	7 weeks

Mandatory requirements –

During each clinical assignment, the student is expected to focus on measuring objective components of function, clinical assessment of muscle power with respect to the available ROM, apply optional methods of assessing ROM and muscle power in contraindicated conditions, assessing functional ROM and muscle power, practice clinical skills to improve ROM and Muscle power on patients , learn measures of preventing joint contractures and soft tissue tightness ,prescription and fabrication of splints, use of manual techniques and exercises through manual methods , translation of improved components into functional and occupational tasks under the supervision and/or partial supervision of clinical &/or teaching faculty .

Shall practice patient and care giver education on home exercises, maintenance and safety issues.

Shall maintain folders in which prescribed number (Minimum 5) of case records and written assignments shall be documented. The student shall obtain signatures and remarks/grades from respective section in- charge at the end of each clinical posting.

Submission of duly signed Clinical Training Record (C.T.R) will be a prerequisite for examination. This record will be maintained as a proof for clinical field work in the third year and shall be produced as a valid document in any event of submission for the future.

Hours and Credits in the Second Year:

CODE.	Subject	Didactics		Practical /Practicum/ labs/Reflective writing		Field work		Total	
		Hours	Credit	Hours	Credits	Hours	Credits	Hours	Credits
BOT II/01/A.	Pharmacology	50	05	-	-	-	-	50	05
BOT II/02/B.	Pathology and Microbiology	81	8.1	04	0.27	-	-	85	8.37
BOT II/03/C.	Psychology	100	10	05	0.33	-	-	105	10.33
BOT II/04/D.	Ergotherapeutics	116	11.6	175	11.67	-	-	291	23.27
BOT II/05/E.	Occupational Therapy Disgnostics- II	116	11.6	175	11.67	-	-	291	23.27
	Field work	-	-	-	-	640	21.33	640	21.33
	TOTAL							1462	91.57

Signature of Program Director & HOD

Seal of the School

SyllRev I

THIRD YEAR BO. Th.

BACHELOR OF OCCUPATIONAL THERAPY

[REVISED VERSION –I]

Third B. O. Th.

Subject Code	Subjects
BOT III/01	**Medicine**
BOT III /02	**Surgery**
BOT III /03	**Psychiatry**
BOT III /04	**Work Physiology and Ergonomics**
BOT III /05	**Occupational Therapy-Application in Medical Conditions**
BOT III /06	**Occupational Therapy-Application in Surgical Conditions**

Syll Rev I

OBJECTIVES OF THE COURSE

DIDACTIC LEARNING

The course covers understanding of- incidence, prevalence and aetiology of health conditions that contribute to disruption in Occupational Performance with focus on common conditions in childhood through adolescence and adult life, health practitioner's role in the treatment and management of these conditions and the role in risk factor identification and prevention.

Cognito-perceptual objectives: [Didactic]:

Student will identify clinical features, signs and symptoms, aetiopathology, course of diseases, complications and management of different medical and surgical diagnoses, apply intervention procedures as applicable.

Will understand / demonstrate the knowledge, care and precautions in the management of patients in the ICU`s [medical, respiratory, surgical, cardiac, acute kidney dialysis, burns, trauma and others], will be cognizant of special care in regards to complex diagnoses and clinical symptomatology during therapeutic intervention.

Students will understand indications of red flags and apply universal precautions in specific infections and clinical set ups.

On basis of the above knowledge will demonstrate efficiency to handle clients referred for rehabilitation with relevant precautions; cause no untoward effect in therapy, recognize end point in a therapy session, recognise emergency situations, need for referral, prognostic implications in functional recovery, progression on therapy protocols and termination of therapy with respect to end goals, modification of therapeutic intervention.

FIELD WORK III

Prepares for –Cognito-perceptual- motor skills:

Field work training in medical sciences (Placement & Objectives):

- 8 weeks of clinical training in the outpatient departments, clinics, ICU'S, bed side units in - paediatric, orthopaedic, psychiatric, surgery and medical units, cardio-vascular – thoracic units.
- Offers clinical experience in identification of signs and symptoms, diagnoses, correlation of investigative procedures to conditions, participation in interdisciplinary interaction during the assignments.

Occupational Therapy field work III objectives*:*
Aims at development of competency to expand a repertoire of Occupational Therapy assessments and interventions, it offers in depth clinical experience in delivery of Occupational Therapy services to promote clinical reasoning and reflective practice.

Based on the above medical module, student will demonstrate skills:
A. To judiciously apply learnt knowledge in the medical module to identify symptoms, evaluate, assess clients in: acute and sub acute care settings, chronic disorders in adult and geriatric groups, joint pathologies, inherited and genetic disorders, general and speciality areas related to medicine and surgery viz. cardio-pulmonary conditions, obesity, risk factor modification and prevention, micro-vascular surgeries, traumatic hand injuries, burns, ICUs.
B. To evaluate and assess for functional deficits using clinical analysis and standardized tools.
C. To establish treatment goals, apply treatment intervention for physical dysfunction, in acute and sub-acute practice settings.
D. To apply knowledge of applied work physiology and ergonomics in therapeutic intervention.
E. In delivering of appropriate Occupational Therapy services to promote clinical reasoning and reflective documentation.
F. To articulate current practices and developments in above areas of Occupational therapy practice.
G. To efficiently apply ethics related to professional practice.

Total Transcript Hours – 1462

1438 Total hours + 24 hours Educational visits

Subject Code	Third Year BOTh Subjects	Didactic (Theory Class) Hours	Practical/ Practicum labs (Reflective Writing) (Clinical Class) Hours	Supervised Clinical Field Work/ (Inpatient + Outpatient Hours)	Total Hours
BOT III/01 A	Medicine	121	67	42	230
BOT III /02 B	Surgery/Orthopedics	88	64	42	194
BOT III /03 C	Psychiatry	39	35	20	94
BOT III /04 D	Work Physiology and Ergonomics	32	6	0	38
BOT III /05 E	Occupational Therapy-application in Medical Conditions	61	86	294	441
BOT III /06 F	Occupational Therapy-application in Surgical Conditions	75	72	294	441
	Field Work Visits (7)	-	-	-	24
	Total Hours	416	330	692	1462

SM Rev I

BOT III/01 - MEDICINE

(Didactic 121 hours + Practical 67 hours + Supervised clinical field work 42 hours

= Total 230 Hours)

COURSE DESCRIPTION:

This course intends to familiarize students with medical terminology & abbreviations for efficient & effective chart reviewing & documentation. It also explores selected systemic diseases, focusing on epidemiology, pathology, histology, aetiology as well as primary & secondary clinical characteristics, complications and their management. Discusses & integrates subsequent medical management of General Conditions, Rheumatology, Gerontology, and Cardio-vascular & Respiratory systems, genetic disorders, hematologic and infective disorders with reference to red flag indicators, indications, contraindications & precautions to formulate appropriate intervention.

Sr. No	Topic	Didactic Hours	Practical Hours	Total Hours
1	General Medicine	76	37	113
2	Neurology	24	0	24
3	Paediatrics	21	30	51
	Total	121	67	188

SyllRev

Sr. No.		Topic	Content	Didactic Hours	Practical Hours	Total Hours
				76	**37**	**121**
A1	a	**Cardio-Vascular Diseases**	i. Hypertension – types. ii. Cardiac Conditions a) Coronary Artery Disease (Atherosclerosis, Angina, Myocardial infarction, Congestive Cardiac Failure) b) Rheumatic Heart Disease. c) Infective Endocarditis. d) Cardio myopathy. iii. Valvular Heart Disease. a) Congenital. b) Acquired: iv. Congenital Heart Disease . v. Investigations. a) Basics of E.C.G. [Normal & Abnormal ECG - emphasizing on Ischemia, Infarction & Arrhythmias] b) Observation of conduction of stress test on patient – understand objectives, process and procedure, test interpretation. c) 2D Echo – indications, applications to performance -Ejection Fraction & Wall motion Abnormality.	12		12
	b	**Diseases of the Respiratory System**	i. Acute Diseases: Bacterial Pneumonia, Viral Pneumonia, Aspiration Pneumonia, Tuberculosis, Lung Abscess, and Bronchiectasis. ii. Chronic Obstructive Diseases: 1. COPD: Peripheral airway disease, chronic bronchitis, Emphysema. 2. Asthma. 3. Cystic Fibrosis. 4. Hyaline Membrane diseases. iii. Chronic Restrictive Lung Disease. 1. ILD. iv. Carcinoma of the lungs. v. Pulmonary oedema. vi. Pulmonary Hypertension, CorPulmonale . **Investigations:** 1. Chest X-ray. 2. Blood Gas Analysis. 3. Pulmonary Function Test (Observation of procedure on patient/ understand interpretation in relation to functional capacity.)	12		12
	c	**General Medicine**	i. Disorders of Endocrine system a. Thyroid---- Hyperthyroidism, Hypothyroidism b. Pituitary – Acromegaly, Dwarfism,	17	12	29

			Diabetes Insipidus c. Adrenal conditions - Cushing's syndrome, Hyperadrenalism d. Pancreas: Diabetes Mellitus - Introduction, pathophysiology, types, relation to physical activity, neurological implications (autonomic neuropathy, myopathy, weakness) & medications. ii. Obesity. iii. Nutrition Deficiency Disease (Rickets, Vit. E, Vit. D, Vit. B , micro nutrients(Zn, Se). v. Blood related and Sexually transmitted diseases -HIV, Hepatitis A, B and C.			
	d	**Auto immune Conditions**	i. Rheumatoid Arthritis. ii .Systemic Lupus Erythematosis. iii. Crohn's Disease. iv. Gout. v. Polymyositis. vi. Fibro myalgia. vii. Ankylosing spondylitis. viii. CREST syndrome.	6		6
	e	**Geriatrics and Gerontology**	i. Aging Process (physiological changes due to aging) ii. Cardiovascular & Respiratory complications. iii. Osteoporosis.	3		3
	f	**Dermatology**	Introduction to Dermatology, basic skin lesions & History taking a Infections (Part I) – Scabies, Pediculosis, Bacterial infections b. Skin infection (Part II) Viral, Fungal, Cutaneous T.B. c. Connective tissue disorder-Scleroderma, S.L.E.,. Dermatomyositis, Morphia. d. Eczema, Psoriasis, Psoriatic arthritis, Reiter's Syndrome, PUVA Treatment. e. Cutaneous hyperplasia-Keloid, Hypertrophic scar, Corn, Callosity. f. Cutaneous Manifestation of HIV. g. Hyperhydrosis. h. Drug reaction. i. Urticaria. Genodermatosis -Epidermolysisbullosa. j. Leprosy – types, causes, deformities, management. k. Sexually Transmitted skin lesions.	10		10
	g	**Hematology**	Clinical features, classification and management, as applicable in Anemia, Hemophilia, Thalassemia,	5		5

			Leukaemia, Hodgkin's disease.			
	h	**Nephrology**	Clinical features and management of acute& chronic renal failure, glomerular nephritis, Urinary Tract Infections.	5		5
	i	**Common infectious diseases**	Clinical features and management of – Malaria. Rabies. Leptospirosis. Dengue. Chicken gunya.	4		4
	j	**Pain and Pain Disorders**	Definition, evaluation and management.	2		2

REQUIREMENT IN CLINICAL ASSIGNMENTS OF MEDICINE:

Placements:

Outpatient departments, clinics, ICU'S, bed side units in - paediatric, orthopaedic, psychiatric, general medical units, cardio-vascular – thoracic, pulmonary units.

1. History taking, Evaluation –General Examination & Systemic examination (Inspection, Palpation, Percussion & Auscultation)

2. Presentation and recording of two cases in any of the following:

a. Muscular disorders

b. Respiratory Conditionss

c. Cardio Vascular Conditions

d. Degenerative Conditions / Rheumatology

e. Obesity

f. Nutritional disorders

g. Diabetes Mellitus & Metabolic bone disorders.

Introduction to Intensive Care Units:

a) Infrastructure

b) Instrumentation.

c) Mechanical Ventilation (settings & monitoring)

d) Assessment, monitoring & management of patient in Intensive Care Unit (I.C.U.)

e) Basic Life Support: Introduction& Demonstration

SVI Rev I

RECOMMENDED TEXT BOOK

1. API- Text book of Medicine, 5th edition
2. Medicine-- P.J. Mehta
3. Principles & Practice of Medicine – Davidson
4. Textbook of dermatology – Dr.Khopkar
5. Medicine for Students Golwalla's

Syll Rev I

NEUROLOGY AND PEDIATRICS

COURSE DESCRIPTION:

Forms a knowledge base for applications related to Occupational Therapy intervention in paediatric and developmental conditions and adult neurologic conditions.

This course intends to familiarize students with medical terminology & abbreviations for efficient & effective chart reviewing & documentation. It also explores selective systemic diseases, focusing on epidemiology, aetiology, pathology, histology as well as primary & secondary clinical characteristics & their management. It discusses & integrates subsequent medical management of Neurological & Paediatric conditions to formulate appropriate intervention; indications, precautions & contraindications with respect to clinical presentation.

Sr. No.		Topic	Content	Didactic hours	Practical hours	Total hours
NEUROLOGY				**24**		**24**
A2	a	Cerebro Vascular Accidents	Aetiology, symptoms, investigations & management.			
	b	Extra Pyramidal lesions	Parkinsonism. Athetosis, Chorea, Dystonia. Wilson's disease.			
	c	Diseases of the muscle	Classification, investigation, management Myopathy			
	d	Neuromus cular disorders	Myesthenia Gravis. Poliomyelitis and post polio syndrome. Motor Neuron Diseases.			
	e	Diseases of the peripheral nerves	Polyneuropathies – types, sequelae, prognosis and management.			
	f	Cerebellar disorders	Ataxias- Hereditary and Acquired: Diagnosis, Prognosis and management.			
	g	Disorders of cranial nerves	Affectations due to infective, neoplastic and inflammatory pathology.			
	h	Degenerat ive Diseases	Multiple Sclerosis, SpinoMuscular Atrophy, Alzheimer's Disease, Dementia.			
	i	Infections of the nervous system	Encephalitis, Neurosyphilis, Herpes, Meningitis, Tetanus , Involvement of Nervous system in H.I.V.			
	j	Disorders of Spinal cord	Syringomyelia, TabesDorsalis, Caudaequina syndrome.			
	k	Headache	Types of headache, management Migraine.			
	l	Epilepsy	Classification, complications and			

CMREV

			management.			
	m	Investigations	Understanding indications and reporting of Neuroimaging, EEG, Nerve Conduction Studies. EMG.			
PEDIATRICS				21	30	51
A3	a	Growth and development	a. Normal intra-uterine development of foetus with special reference to Central Nervous System, Neuromuscular System, Cardiovascular Respiratory System b. Normal development & growth c. Immunization and breast-feeding d. Sepsis, Prematurity, Asphyxia. Hyperbilirubinemia and birth injuries. e. Cerebral Palsy- Medical Management including early intervention. f. Epilepsy . g. Mental Retardation.			
	b	Developmental disorders associated with spinal cord	Spinal Dysraphism, Spina Bifida, Meningocele, Myelomeningocele, hydrocephalus.			
	C	Common infection	a) C.N.S.& Peripheral Nervous System. b) Typhoid, Rubella, Mumps, Measles, Diphtheria, Chickungunya, Malaria, Leptospirosis.			
	D	Common diseases of the Respiratory system	Asthma, Bronchitis, Bronchiectasis, T.B., Pneumonia, Lung collapse, Pleural effusion, Cystic Fibrosis, Broncho-pulmonary dysplasia. Respiratory distress in neonate.			
	E	Rheumatology	Juvenile R. A. & Rheumatologic conditions of Musculoskeletal system. Rheumatic Heart disease.			
	F	Nutritional disorders	Malnutrition and Vitamin deficiency conditions.			
	G	Genetic & congenital disorders	Down's Syndrome, Genetically transmitted neuromuscular conditions. Congenital Heart Disease.			

CLINICAL SKILLS IN:

1. History taking and general examination in neonate and child.
2. Examination of neonate and neonatal reflexes.
3. Examination of the nervous system.
4. Examination of respiratory system.
5. Examination of cardiovascular system.
6. Examination of musculoskeletal system.
7. Ventilatory care in neonate and child.

RECOMMENDED TEXT BOOKS:

1. Essentials of Paediatrics – O.P. Ghai-Inter Print publications

2. Clinical Paediatrics - Meherban Singh

3. Clinical neurology – Roger Bannister

4. Diseases of Nervous system – Walton

5. Clinical Examination in Neurology - Bickerstaff

SCHEME OF THEORY EXAMINATION:

Distribution of maximum marks for the subject having 100 marks shall be as follows:

University exam: 80 marks, Internal Assessment - 20 marks.

Internal Assessment: One exam at the end of each term. Average of total marks obtained to be considered for Internal Assessment.

Duration of papers: 3 Hours

Scheme of theory exam to be conducted out of 80 marks:

Section	**Type of Question**	**Marks Distribution**
A **SAQ**	Q 1 - Short Answer Questions any FIVE out of SIX Q 2 - Short Answer Questions any FIVE out of SIX	**(5x3) = 15** **(5x7) = 35**
B **LAQ**	Q 3 - Long Answer Questions any ONE out of TWO Q 4 - Long Answer Questions any ONE out of TWO	**(1x15) = 15** **(1x15) = 15**
	TOTAL	**80 Marks**

BOT III/02 – SURGERY/ORTHOPEDICS

[Didactic 88 hours + Practical 64 hours + Supervised clinical field work 42 hours

= Total 194 hours]

COURSE DESCRIPTION:

This course intends to familiarize students with principles of General surgery, speciality surgeries like cardiovascular, thoracic, neurosurgery and plastic surgery. It familiarizes the students with appropriate terminology and abbreviations for efficient and effective chart reviewing and documentation. It explores various conditions needing attention to pathology, and their surgical and medical management. The course highlights awareness of various general and speciality surgeries for effective and safe decision making in therapeutic intervention.

Sr. No	Topic	Didactic Hours	Practical Hours	Total Hours
1	General Surgery	15	17	32
2	Neurosurgery	10	0	10
3	E.N.T. Surgery	10	0	10
4	Opthalmic Surgery	7	0	7
5	Cardio Vascular and Thoracic Surgery	12	10	22
6	Plastic / Reconstructive Surgery	10	0	10
7	Gynecology& Obstetrics	10	7	17
8	Orthopedics	14	30	44
	Total	88	64	152

SVI Rev I

Sr. no.		Topic	Content	Didactic hours	Practical hours	Total
B1	**GENERAL SURGERY**			**15**	**17**	**32**
	a	Anaesthesia	Types, Effects, indications, contra indications & common postoperative complications.			
	b	Haemorrhage and Shock	Definition, classification, signs and symptoms, management.			
	c	Homeostasis	Water & Electrolyte balance, clinical repercussions of imbalance in electrolyte levels			
	d	Inflammation/ Infections	Definition, signs and symptoms, types, complications & management			
	e	Wounds, Ulcers, Cellulitis	Definition, identification classification, healing process, Management - minor surgery procedures in wound management, dressing bandaging, medications used in dressing and cleaning of wounds. Procedure in hand washing and universal precautions.			
	f	Abdominal surgeries	Common abdominal surgeries-types, indications, surgical incisions &procedures, advantages and disadvantages, complications. Minimally invasive surgery.			
	g	Oncosurgery	Classification of Head, Face, Neck and breast cancer, clinical features pre & post-operative management for head, neck, face & breast cancer. Mastectomy - Approach, types, indications complications & management.			
	h	Amputation	Definition, Indications, types, sites, complications & management with special emphasis on Phantom limb pain and sensation.			
	i	Burns	Causes, complications, classification, pathological changes in tissue, healing of burns, recent advances in medical & surgical management,			

SMRV

			Burns unit –precautions related to burns unit.			
	j	Varicose veins and Peripheral Vascular Disease	Beurger's disease, Raynaud's disease, Deep Vein Thrombosis, Gangrene - treatment and surgical management, Complications and its management			
	k	Hernia	Definition, types, surgical procedures, precautions and complications, MESH applications, indications and complications.			
	l	Organ transplant, organ donation	Definition, legal issues and mandates. Transplantation approach, risks and complications, management, problems related to donor and recipient, precautions.			
B2	**NEUROSURGERY**			10		10
	a	Head Injury	Types, clinical features & management			
	b	Intra cranial & Spinal tumours	Classification, signs and symptoms, management and complications			
	c	Intracranial Aneurysm and Arterio Venous malformation	Management, complications			
	d	Neural Tube Defects	Hydrocephalus, Myelomeningocoeles, Spinal Dysraphism			
B3	**E.N.T. SURGERY**			10		10
	a	General ENT	Indications, surgical approach & management. Management of Common conditions of the ear, nose and throat (e.g. URTI).			
	b	Tracheostomy	Indications, surgical approach & management,			
	c	Cra nial Nerve palsies	Cranial nerve palsy, VII &VIII nerves surgical intervention and management, indications. Laryngeal nerve injuries.			
	d	Vertigo	Definition, classification, causes prognosis and treatment.			
	e	Dysphagia	Definition, aetio-pathology, complications & treatment.			
	f	Hearing impairment	Definition of Normal acuity. Hearing impairment, deafness. Audiogram – implications. sensorineural			

SMRCV

			hearing loss. Cochlear / Auricular implants in congenital conditions and deafness. Types of hearing aids.			
B4	**OPHTHALMIC SURGERY**			7		7
	a	Cranial Nerve Palsy	Impact of IIIrd, IVth, VIth Cranial Nerve palsy on vision.			
	b	Common ophthalmic conditions	Diseases of the conjunctiva, , cataract, optic nerve tumours and their management.			
	c	Surgical procedures in ophthalmology	Keratoplasty and Tarsorraphy, procedures for macular degeneration, cataract, detachment, myopia –related precautions in therapy.			
	d	Eye Donation	Procedure, Indications, Prerequisites and legal procedures.			
	e	Visual field deficits	Impact in different conditions like nerve palsies, cataract, glaucoma, myopia, hyper-metropia, evaluation of vision in cortical and peripheral nerve lesions. Visual components of depth perception. Scanning, tracking, accommodation processesin vision.			
B5	**CARDIO VASCULAR AND THORACIC SURGERY**			**12**	**10**	**22**
	a	Introduction	Cardiorespiratory resuscitation, cardiopulmonary bypass, Special investigation procedures in cardiac surgery, Complications of cardiac surgery Brief description of indications, surgery, complications following surgeries.			
	b	Surgeries of thorax	Thoracotomy, Thoracoplasty.			
	c	Surgeries of the lung	Lobectomy, Pneumenectomy, Decortication.			
	D	Surgeries of Cardiovascular system	Surgery for coronary artery disease. Valvular surgeries. Surgery for Congenital Heart Disease. Aneurysms and Peripheral vascular diseases.			

B6	**PLASTIC / RECONSTRUCTIVE SURGERY**			10		10
	a	Skin grafts & flaps	Types, indications with special emphasis to burns, wounds. Keloid & Hypertrophied scar management.			
	b	Ulcers	Complications and postoperative care.			
	c	Tendons	Tendon transfers, with special emphasis to hand, foot & facial paralysis.			
	d	Nerves	Reconstructive surgery of peripheral nerves.			
	e	Reconstructive Surgery	Micro vascular surgery- re implantation and revascularization.			
	f	Cosmetic Surgery	Criteria, Indications and management, Cosmetic use of Botox.			
	g	Hand injuries	Crush injuries, tendon injuries.			
B7	**GYNAECOLOGY AND OBSTETRICS**			10	7	17
	a	Physiology	i. Physiology of puberty & menstruation. ii. Physiology of pregnancy. iii. Physiology of labour and post natal care.			
	b	Gynecological surgeries	Including neoplasms of female reproductive organs.			
	c	Menopause	Pre, peri & post Menopausal complications and management.			
	d	Other gynaecological conditions	Infertility. Urogenital dysfunctions. Pelvic Inflammatory Disease.			

CLINICAL:

Bed side clinical teaching and teaching in outpatient clinics during assignments in the subject. This includes:

A. Evaluation, auscultation, palpation, presentation and recording at least three cases in the assignment to obtain signature from the concerned teacher from time to time.

B. Observation/ Video Demonstration of abdominal and thoracic surgeries, plastic/ reconstructive surgeries.

RECOMMENDED TEXT BOOKS

1. Short practice of surgery-- Bailey and Love.
2. Textbook of Surgery – Das.
3. Undergraduate surgery - AK Nan.

ORTHOPAEDICS

COURSE DESCRIPTION:

This course intends to familiarize students with principles of orthopaedic surgery along with terminology and abbreviations used in Orthopaedics for efficient and effective clinical understanding and documentation. It also explores various orthopaedic conditions focusing on epidemiology, pathology, primary and secondary clinical characteristics, conservative and surgical management.

Sr. No.		Topic	Content	Didactic hours	Practical hours	Total Hours
B8	**ORTHOPEDICS**			14	30	44
	a	Fractures	a. Definition, Classification, Causes, Clinical features, healing of fractures & Complications. b. Principles of general management of: i. Fractures of the Upper Extremity. ii. Fractures of the Lower Extremity. iii. Fracture of the vertebral column, thorax and pelvis. iv. Trauma care and first aid.			
	b	Dislocations & Subluxations	A. Definition, General description, Principles of management of traumatic dislocation and subluxation of following joints: i. Shoulder joint. ii. Acromioclavicular joint. iii. Elbow joint. iv. Hip joint. v. Knee joint.			
	c	Soft Tissue And Traumatic Injuries	a. Introduction ,Anatomy & physiology general description, grade of injury and management of injuries of: i. Ligaments, Bursae, Fascia. ii. Muscle and tendon injuries of upper and lower limb. b. Whiplash injury of the cervical spine.			
	d	Deformities And Anomalies	a. Definition, Causes, Classification, Congenital and acquired deformities. Physical, clinical and radiological features, Complications. b. Principles of medical and surgical management of the deformities. c. General description of following deformities : i. Deformities of the spine: a) Scoliosis. b) Kyphosis. c) Lordosis.			

			d) Flat back. e) Torticollis. ii. Deformities of the lower limb: a) Congenital Dislocation of Hip, coxavara ,coxavalga, anteversion, Retroversion. b) Genu valgum, Genu varum, Genu recurvatum, Congenital Dislocation of Knee. c)Talipescalcaneousequinusvarus& valgus. d) Pescavus, Pesplanus. e) Hallux valgus &varus, Hallux rigidus and hammer toe. iii. Deformities of Upper limb a) Sprengel's shoulder, Cubitusvarus, Cubitus valgus b) Dupytren's contracture.			
	e	Degenerative And Inflammatory Conditions	a. OsteoArthritis. b. Spondylosis. C .Spondylolysis and listhesis. d. Pyogenic arthritis. e. Rheumatoid arthritis. f. Juvenile arthritis. g. Tuberculous arthritis. h. Gouty arthritis. i. Haemophilic arthritis. j. Neuropathic arthritis. k. Ankylosing spondylitis. l. Psoriatic arthritis.			
	f	Management Of Metabolic Disorders	a. Osteoporosis. b. Osteomalacia & Rickets.			
	g	General Orthopaedic Disorders	a. Carpel tunnel syndrome /Entrapment nerve injuries. b. Compartment syndrome, Ischemic contracture. c. Avascular necrosis of bone in adult and children. d. Backache /Prolapsed Intervertebral Disc. e. Cumulative Trauma Disorders.			
	h	Tumours Of The Musculoskeletal System	i. Classification, Principles of general management. ii. General description of benign and malignant tumours of musculoskeletal system.			
	i	Sports Injuries	Management of: Ligament and Meniscal injuries of upper limb and lower limb in sports. Overuse injuries in sports.			

Survey

CLINICAL:

Independent clinical orthopaedic evaluation presentation & recording of:

a) One acute soft tissue lesion (including nerve injury/muscle tear).

b) Two cases of degenerative arthritis of extremity joints (One each in Upper Extremity and One Lower Extremity).

c) Two cases of spine (one P.I.D., one traumatic).

d) One post operative case of fractures of extremities with fixation/ replacement of knee/ hip

e) One paraplegia / quadriplegia.

f) Video presentation of Surgeries or attending live Surgeries for Total hip and knee replacements.

RECOMMENDED TEXT BOOKS

1. Outline of Fractures –Adams.
2. Outline of Orthopedics.--Adams.
3. Apley's systems of orthopedics and fractures by Louis Solomon, 9th edition.
4. Orthopedics by Dr.Maheshwari.

SCHEME OF THEORY EXAMINATION:

Distribution of maximum marks for the subject having 100 marks shall be as follows:

University exam - 80 marks Internal Assessment - 20 marks.

Internal Assessment: One exam at the end of each term. Average of total marks obtained to be considered for Internal Assessment.

Duration of papers: 3 Hours

Scheme of theory exam to be conducted out of 80 marks

Section	**Type of Question**	**Marks Distribution**
A **General Surgery**	Q 1 Short Answer question Any FIVE out of SIX	**(5x3) = 15**
	Q 2 Short Answer question Any FIVE out of SIX	**(5x5) = 25**
B **Orthopaedics**	Q 3 Short Answer question Any FIVE out of SIX	**(5x3) = 15**
	Q 4 Short Answer question Any FIVE out of SIX	**(5x5) = 25**
	TOTAL	**80 Marks**

Syl Rev I

BOT III/03 - PSYCHIATRY

[Didactic 39 hours + Practical 35 hours + Supervised clinical field work 20 hours

= Total 94 hours]

COURSE DESCRIPTION:

The course design increases awareness of psychological and psychosocial issues faced by individual care givers and community; their significance at various points on the continuum of health and disability. The course discusses personal and professional attitudes and values as they relate to developing therapeutic relationships. It emphasizes on communication skills for effective interaction with patients, health-care professionals and caregivers. It expects students to identify common psychiatric symptoms, understand the management of common psychiatric conditions, effects of medications on control of symptoms, and their common side effects.

Sr. No.		Topic	Content	Didactic Hours	Practical Hours	Total Hours
C1	**PSYCHIATRY**			**39**	**35**	**74**
	a	Psychiatric illness	Signs and symptoms related to Consciousness, attention, emotion, motor behaviour, thinking, speech, perception, memory.			
	b	Diagnosis of psychiatric disorders	History & Mental Status Examination. Current diagnostic information.			
	c	Schizophrenia and other psychotic disorders	a. Schizophrenia & its types, b. Other psychotic disorders (Psychotic disorder, Delusional disorder, Schizo-affective disorders, Post partum psychosis Impact of each on function.			
	d	Mood disorder	Overview, diagnostic criterion of specific mood disorders, onset, prevalence and Prognosis of: Manic episode. Major depressive episode. Mixed episode. Hypomaniac episode.			
	e	Organic brain disorders	Delirium, dementia, Amnestic syndromes, Organic personality disorder.			
	f	Anxiety disorders	Overview, onset, prevalence and prognosis, medical management, impact on function, effect & side effect of medication on performance. Types –, Phobia, Obsessive Compulsive Disorder, Panic disorder, Post traumatic stress disorder, Acute stress disorder, Generalised anxiety disorder.			
	g	Personality disorder	Overview, Classification, Types, Diagnostic criterion, prognosis.			
	h	Disorders of infancy –	Attention Deficit Hyperactivity Disorder Mental Retardation.			

		childhood & adolescence	Conduct disorder, Pervasive developmental disorder. Enuresis. Communication disorder. Learning disorder. Motor skill disorder.			
	i	Substance related disorder	Overview, substance dependence, abuse, prevalence and prognosis, impact on function with respect to medical management in Alcohol and other substances.			
	j	Eating disorder	Diagnostic criterion, impact on function with respect to medical management of Anorexia Nervosa Bulimia Nervosa.			
	k	Cognitive disorder	Dementia, Alzheimer's, Pick's disease, Amnestic disorder.			
	l	Somatoform disorders	Overview, onset, prevalence and prognosis, medical management: Somatisation disorder, Conversion disorder, Pain disorder, Hypochondriasis, Body dysmorphic disorder.			
	m	Therapy procedure &approaches	ECT, Group therapy, Psycho therapy, Cognitive Behavioural Therapy.			

CLINICAL:

Independent clinical psychiatric evaluation, presentation and recording of the above conditions

BOOK RECOMMENDED :

1) Ahuja N. – A Short Textbook of Psychiatry (latest edn.) Jaypee Brothers, Medical Publishers.

2) Shah L.P. : Handbook of Psychiatry.

3) Gandhi & Gandhi – Short Text book of Psychiatry.

4) Synopsis of psychiatry- Kaplan.

5) Diagnostic criterion from DSM.

SYLLABUS

SCHEME OF THEORY EXAMINATION:

Distribution of maximum marks for the subject having 50 marks shall be as follows:

University exam –40 marks, Internal Assessment – 10 marks.

Internal Assessment: One exam at the end of each term. Average of total marks obtained to be considered for Internal Assessment.

Duration of papers: 2 Hours

Scheme of theory exam to be conducted out of 40 marks:

Section	**Type of Question**	**Marks Distribution**
A	Q 1 Short Answer question Any FIVE out of SIX Q 2 Short Answer question Any FIVE out of SIX	**(5x3) = 15** **(5x5) = 25**
	TOTAL	**40 Marks**

Syll Rev I

BOT III/04 –WORK PHYSIOLOGY AND ERGONOMICS

[Didactic 32 hours + Practical 6 hours = Total 38 hours]

COURSE DESCRIPTION:

The student will demonstrate knowledge and ability of work physiology and ergonomics and its application and scope in Occupational Therapy and Industry.

The course makes the student cognizant about evaluation and assessment of physical capacity and fitness, aerobic and anaerobic performance. The course offers know how of appropriate use of training equipment and protocols, test performance for work fitness, indications, contraindications for registering in exercise training and discharge programs, rehabilitation applications in clinical diagnosis.

The course offers opportunity to learn basics of ergonomics in industry, the prevention of cumulative trauma disorders, joint pathologies, cardiopulmonary conditions and other conditions as applicable. It covers aspects of mental ergonomics, management f anxiety and stress in industry.

Sr. No	Topic	Didactic Hours	Practical Hours	Total Hours
1	Work Physiology	15	-	15
2	Ergonomics	17	6	23

SylRev

WORK PHYSIOLOGY

Sr. No.		Title	Content	Didactic Hours	Total Hours
D1	**WORK PHYSIOLOGY**			15	15
	a	Concepts of Physical Performance	Physiology of the aerobic and anaerobic exercises. Special emphasis on : (a) Physiology of the neuromuscular system, particularly the regulation of strength and velocity of a contraction by muscle receptors interacting with the nervous system. (b) The function of the skeletal, cardiovascular, and respiratory systems at rest and during exercise, and their adaptations to training. (c) Physiology of physical performance with respect to aerobic and anaerobic power, their measurement, fatigue, recovery after exercise, factors that affect physical performance. (d) Basic principles of strength and aerobic training, and the physiologic effects.		
	b	Evaluation of Physical Performance	Various tests for Aerobic and Anaerobic capacity: 1. Master's Step Test. 2. Treadmill Test. 3. Bicycle Ergo meter Tests. 4. Walk tests. Protocols & Methods for: Parameters of evaluation. Measurement of oxygen uptake. Principles and Methods of Physical Training.		
	c	Physiological considerations and requirements of Physical Performance Capacity	Mechanism of Temperature Regulation and its effects. Nutrition and Physical Performance.		

Syllabus

	d	Factors affecting Physical Performance	Discuss the effects of various factors like age, sex, training, fatigue etc on physical performance. Effects of illness and habits on physical performance. Acclimatization, effects of altitude, season, smoking, temperature, deconditioning.		
	e	Applied Work Physiology	Discuss the concept of energy expenditure at work, rest and leisure. Applications to Cardio- Pulmonary Rehabilitation.		

ERGONOMICS

Sr. No		**Title**	**Content**	**Didactic Hours**	**Practical Hours**	**Total Hours**
D2	**ERGONOMICS**			17	6	23
	a	Introduction	Definition of Ergonomics. Areas and branches of Ergonomics.			
	b	Anthropometric Considerations in Ergonomics	Enumerate facets- static and dynamic anthropometry. Overview static anthropometry : Differences in respect to gender, ethnicity, age, occupation, persons with disability. Measurements, concepts of 5^{th}, 50^{th} and 95^{th} percentile. Limitations and uses of data principles in its application.			
	c	Environmental Design	Understand the types of environment. Outline the effects of environmental factors such as temperature, humidity noise, vibration, visual environmental pollution on human body. Explain the safety factors, accidents and their prevention.			

Syll Rev I

	d	Skill psychology in Ergonomics	Explain skill learning with emphasis on a. Stages involved. b. Characteristics of well learnt task.			
	e	Man- machine system as Ergonomic concept	Describe functioning of man-machine system. Information processing theory and the process.			
	f	Ergonomic considerations at Work	Explain layout of equipment design of seating. Explain the design of work space. Human compatibility and use of displays and controls. Work site job analysis.			
	g	Cognitive Workload & Organization of Mental Space	Explain the concept of cognitive workload, its advantages and organization of mental space. Understand the effects of cognitive overload.			
	h	Time and Motion Study in Ergonomics	Define and underline the assumptions of Time and Motion study. Explain the cycle of managerial control and its application.			
		Practicum/Practical/Labs: Interactive sessions following clinical and/or simulated audio-visual presentations	Group presentation on Cycle of Managerial Control- followed by interactive session. Simulated Case presentations and interactive sessions on Time and Motion study and applications of Cycle of Managerial Control.		03	
	I	Application of Ergonomics	Scope of ergonomics in modern society. Application of Ergonomic principles in Occupational Therapy.			
		Practicum/practical/	Ergonomic assessment for Table		03	

		Labs: Demonstration , Hands on practice on peers, models or clients under supervision, Interactive sessions following clinical and/or simulated audio-visual presentations	work: Typists, Computer operators, sweepers. Hands on practice: Patient seated on a wheelchair for tailoring. Audio visuals on patients working in printing, carpentry, lathe machine identify abnormal work postures and actions, corrective measures.			

Books Recommended:

1) Astrand PA , Rodahe K : Textbook of Work Physiology
2) Fitts PM & Posner MI : Human Performance
3) Karen Jacobs : Ergonomics for Therapists
4) Mural KF : Ergonomics – Man in his working environment
5) Mundel : Time and motion study
6) McArdle: Exercise Physiology

SCHEME OF THEORY EXAMINATION:

Distribution of maximum marks for the subject having 50 marks shall be as follows:

University exam -40 marks, Internal Assessment - 10 marks.

Internal Assessment: One exam at the end of each term. Average of total marks obtained to be considered for Internal Assessment.

Duration of papers: 2 Hours

Scheme of theory exam to be conducted out of 40 marks:

Section	**Type of Question**	**Marks Distribution**
A	Q 1 Short Answer question Any FIVE out of SIX Q 2 Short Answer question Any FIVE out of SIX	**(5x3) = 15** **(5x5) = 25**
	TOTAL	**40 Marks**

BOT III/05 - OCCUPATIONAL THERAPY - APPLICATION IN MEDICAL CONDITIONS

[Didactic 61 hours + Practical 86 hours + Supervised Clinical Fieldwork 294 Hours

= Total 441 hours]

COURSE DESCRIPTION:

This course intends to familiarize students with principles of rehabilitation in clients with burns, amputation, cancer, traumatic hand injuries and peripheral vascular disease. Also familiarizes the students with terminology and abbreviations for efficient and effective chart review and documentation. It covers the occupational therapists' scope of practice as well as current assessment, treatment and documentation methods utilized by Occupational Therapists in acute care settings along with use of high technology equipment and monitoring devices in Intensive Care Units. It discusses acute care risk factors, complicated diagnoses in the settings and role of Occupational Therapy within this setting, treatment techniques and modalities.

Sr. No	Topic	Didactic Hours	Practical Hours	Total Hours
1	Autoimmune Disorders	7	12	19
2	Geriatrics	7	12	19
3	Dermatology	5	10	15
4	Immune Disorders - HIV	9	06	15
5	Pulmonary Conditions	8	10	18
6	Cardio Vascular Conditions	12	16	28
7	Hematology	8	10	18
8	Obesity	5	10	15
	Total	61	86	147

Syl Rev I

Sr. No.		Topic heading	Content	Didactic hours	Practical Hours	Total Hours
E1	a	**Autoimmune disorders-** Rheumatoid arthritis & SLE	Definition of conditions, stage of disease, signs and symptoms, deformities, patho mechanics of deformities. Occupational therapy management in Acute, sub acute and chronic stage of diseases, mobilization techniques, understanding of orthotic applications, joint protection and energy conservation.	7		19
		Practicum/practical/ Labs: Demonstration Hands on practice on peers, models or clients under supervision, interactive sessions following clinical and/or simulated audio-visual presentations	Evaluation of deformities Splint Prescription based on clinical reasoning-live case presentations. Education for joint protection, energy conservation, home making. Discussion, deliberations and interactive sessions.		12	
E2	a	**Geriatrics**	Definition of the term gerontology & geriatrics, health & health context in aging, biological, psycho physiological & psychological theories of aging, specialized tools of OT assessment & treatment in geriatrics. Role of OT in fall prevention.	7		19
		Practicum/practical / Labs: Demonstration Hands on practice on peers, models or clients under supervision, interactive sessions following clinical and/or simulated audio-visual presentations	Seminar on fall prevention Assessment of a client on a standard tool. Demonstration on a healthy geriatric patient-posture, balance, reaction time, proprioceptive and kinesthetic changes. Audio-visual presentations- using problem cases, interactive sessions on environmental modification and other recommendations.		12	
E3	a	**Dermatology**	Definition, mode of transmission, clinical features & OT management in Leprosy. Psychosocial implications in Leprosy. CREST syndrome, SLE, affectations of the integumentary system.	5		15

		Practicum/practical/ Labs: Demonstration , Hands on practice on peers, models or clients under supervision, interactive sessions following clinical and/or simulated audio-visual presentations	Seminar presentation on problem areas related to Occupational therapy in- CREST. Leprosy. SLE.		10	
E4	a	**Immune disorders- HIV**	Spectrum of HIV disease & its impact on occupational behaviour. Describe appropriate OT goals, treatment plan & strategies for people with HIV infection & AIDS. Describe the physical, psychological & environmental needs of people with HIV infection & AIDS. Palliative Care for HIV	9		15
		Practicum: presentation simulated audio-visual presentations	Seminar presentation on HIV with emphasis on OT intervention.		6	
E5	a	**Pulmonary conditions**	COPD, Asthma, Tuberculosis, Occupational lung diseases, ILD. Symptom identification with respect to functional performance. Classification of patients on symptomatic basis. Disability rating (ICF). Occupational therapy management with special reference to improving strength, endurance, vital capacity, Energy Conservation Technique and Work Simplification Technique.	8		18
		Practicum/practical/ Labs: Demonstration , Hands on practice on peers, models or clients under supervision, interactive sessions following clinical and/or simulated audio-visual presentations	Demonstration of clinical evaluation. Hands on practice-Assessment of pulmonary parameters –clients, peers, models. Practice of techniques for breathing exercises on peers/ patients, administration of exercise on standard equipment. Graded Exercise Test for Pulmonary rehabilitation. Simulated or live case presentations- Goals of therapeutic intervention in various diagnoses. Deliberations and interactive sessions on Occupational and community re-integration.		10	

SyllRev

E6	**a**	**Cardiovascular conditions**	**Cardiac conditions and management**: Medical and Surgical : Hypertension, Ischemic heart disease, Coronary artery disease, Cardiomyopathy, Arteriosclerosis, Atherosclerosis, Congenital and acquired heart diseases, Rheumatic heart disease, Valve replacements, CABG, PTCA. **Knowledge base for intervention**: Understanding and correlating-clinical presentations, physical findings, patho-physiology and investigations. Reading and interpreting basic cardiopulmonary findings-ECG, Echo, Treadmill reports, ABG, Pulse, Oximetry, Pulmonary Function Test, X-rays, Blood profiles-enzymes levels, lipid and cholesterol levels; catheterization finding as reported by the physician. Effects of drugs on exercise performance Indications and Contraindications for work and activity. Defining and understanding MET & its application to exercise prescription, work and sports medicine. **Assessments and Intervention:** Administering conditioning and exercise programs using treadmills, ergo meters, step tests, walking and brisk walking protocols, spot jogging. Low resistance training. Work hardening and work assessment in cardio-pulmonary conditions. Modification of work and activity programmes with respect to residual cardiac functions. Assessment on work simulation. Interpreting Cardio Pulmonary responses. **Maintenance and patient education**: Work simulation and simplification, energy conservation techniques. Risk factor modification.	12		28
		Practicum/practical/ Labs: Demonstration , Hands on practice on peers, models or clients under supervision, interactive sessions following clinical	Demonstration of clinical evaluation. Hands on practice-Assessment of cardiac parameters –clients, peers, models. Administration of exercise on standard equipment for: conditioning programs, strength training : isometric and isotonic exercises. Goals of therapeutic intervention in		16	

Syllabus

		and/or simulated audio-visual presentations	ischemia, infarction, Congestive Heart Failure, PTCA. Interpretation of ECG, 2D Echo, CST reports for correlation to exercise. Work Assessment for work fitness. Simulated or live case presentations- Deliberations and interactive sessions.			
E7	a	**Hematology: Hemophilia and Thalassemia.**	Definition, classification Occupational therapy management, psychological and psychosocial implications, Prevention of bleeds, joint protection, indications and contraindications for exercises and orthosis in hemophilia- musculoskeletal management. Energy Conservation & life style modification, dietary measures, patient education.	8		18
		Practicum/practical/ Labs: Demonstration Hands on practice on peers, models or clients under supervision, interactive sessions following clinical and/or simulated audio-visual presentations	Demonstration of positioning, holding techniques during execution of exercises. Audio visuals for splint prescription Practice on peers and models for above. Joint protection and work simplification techniques.		10	
E8	a	**Obesity**	Definition and classification of obesity, BMI Health related correlates of obesity (Endocrine disorders like Diabetes, Thyroid disorders) Body composition- relation of Percentage of body fat, body fat distribution, fat cell size & number with obesity, Bone and water content, muscle mass. OT management using Preventive and corrective programs, through work, activities and exercises. Life style modification, diet & activity modification, stress management. Community education and preventive programs.	5		15
		Practicum/practical/ Labs: Demonstration , Hands on practice on peers, models or clients under supervision, interactive sessions	Seminar presentation. Assessment of parameters- fat pad measurement, BMI, grading obesity. Simulated and live case presentations- Equating intake and output ratios in terms of diet and activity/ exercise. Life style modifications, exercise prescription with respect to precautions in		10	

Sri REV

		following clinical and/or simulated audio-visual presentations	each case.			

BOOKS RECOMMENDED

1) Occupational Therapy – Willard & Spackman's

2) O.T. Practice Skills for Physical Dysfunction – Pedretti

3) O.T. in physical Dysfunction – Trombly& Scott

4) Therapeutic Exercise – Kisner

5) Therapeutic Exercise Basmajian

6) Rehab Medicine – Goodgold

7) Rehabilitation of Hand – Wynn & Parry

8) Rehabilitation of the Hand: Surgery and Therapy – Hunter

9) Hand splitting – Fess, Gettle& Strickland.

10) Pulmonary rehabilitation, guidelines to success – Hodgkin T.E.

11) Physical rehabilitation, assessment, treatment – O'Sullivan.

12) Work physiology by Mac Ardle

Syl Rev I

SCHEME OF THEORY EXAMINATION:

Distribution of maximum marks for the subject having 100 marks shall be as follows:

University exam - 80 marks, Internal Assessment - 20 marks.

Internal Assessment: One exam at the end of each term. Average of total marks obtained to be considered for Internal Assessment.

Duration of papers: 3 Hours

Scheme of theory exam to be conducted out of 80 marks:

Section	Type of Question	Marks Distribution
A **SAQ 50 Marks**	Q 1 - Short Answer Questions any FIVE out of SIX Q 2 - Short Answer Questions any FIVE out of SIX	**(5x3) = 15** **(5x7) = 35**
B **LAQ 30 Marks**	Q 3 - Long Answer Questions any ONE out of TWO Q 4 - Long Answer Questions any ONE out of TWO	**(1x15) = !5** **(1x15) = !5**
	TOTAL	**80 Marks**

PRACTICAL EXAMINATION:

Total marks 100.

University Exam 80 , Internal Assessment-20.

Internal Assessment: One exam at the end of each term. Average of total marks obtained to be considered for Internal Assessment.

The distribution of marks for University exam to be conducted out of 80 marks:

Section	Type of Question	Marks Distribution
A.	**Long Case**	**40 marks**
B.	**Short Case**	**20 marks**
C.	**Viva Voce**	**15 marks**
D	**Communication Skills**	**05 marks**

BOT III/06 - OCCUPATIONAL THERAPY – APPLICATION IN SURGICAL CONDITIONS

(Didactic 75 hours + Practical 72 hours +Supervised Clinical Fieldwork 294 Hours

= Total 441 Hours)

COURSE DESCRIPTION:

This course intends to familiarize students with principles of rehabilitation in clients with burns, amputation, cancer, traumatic hand injuries and peripheral vascular disease. Also familiarizes the students with terminology and abbreviations for efficient and effective chart review and documentation. It explores various conditions needing attention, focusing on pathology, as well as primary and secondary clinical characteristics and their management.

Sr. No	Topic	Didactic Hours	Practical Hours	Total Hours
1	Burns	8	8	16
2	Amputation	10	8	18
3	Tendon Injuries of the hand	8	8	16
4	Crush Injuries of the hand	10	8	18
5	Brachial Plexus & Peripheral nerve injuries	8	8	16
6	Cancer Rehabilitation	8	8	16
7	Vascular Conditions	6	6	12
8	Occupational Therapy for the blind	4	5	9
9	Occupational Therapy for deaf, dumb	5	5	10
10	Obstetrics & Gynecology	8	8	16
	Total	75	72	147

SYllRev I

Sr. No.		Topic heading	Content	Didactic hours	Practical Hours	Total hours
F1	a	**Burns**	Define & classify burns, Characteristics of different degrees of burns. Describe phases of recovery & focus on OT intervention for each phase (pre graft, post graft, rehabilitation). Factors that increase potential for scar hypertrophy & contracture. Psychosocial aspects.	8		16
		Practicum/practical/ Labs: Demonstration , Hands on practice on peers, models or clients, interactive sessions following clinical and/or simulated audio-visual presentations	Demonstration of anti deformity position. Measurement of pressure garments. Demonstration of different devices for positioning. Orthotics for burns.		8	
F2	a	**Amputation**	Define amputation, causes of amputation, surgical management, levels of amputation (for both Upper and lower extremity) OT rehabilitation post amputation. Stump evaluation, ideal stump, stump refashioning, complications of stump end, phantom limb, phantom limb pain, desensitization, body image disturbances. **Training and rehabilitation** Types of prosthesis - Body powered, hybrid, Modular prosthesis, CAD CAM prosthesis & Myoelectric prosthesis, Components of prosthesis & the function of each component Pylon training. Check out of prosthesis. Pre & post prosthetic OT management techniques. Psychological implication of amputation. Factors that interfere with prosthetic training.	10		18
		Practicum/practical/ Labs: Demonstration , Hands on practice on peers, models or clients under supervision,	Demonstration of different types of prosthesis Identification of different parts of prosthesis Donning and doffing of prosthesis Stump bandaging Push up transfer		8	

SyllRev

		interactive sessions following clinical and/or simulated audio-visual presentations	Gait analysis with prosthesis Check out of prosthesis Wheelchair – amputee frame.			
F3	a	**Tendon injuries of the hand**	Aetiology of Flexor and extensor tendon injuries, Zones of tendon repair, Protocols for intervention, role of Splinting,	8		16
		Practicum/practical/ Labs: Demonstration , Hands on practice on peers, models or clients, interactive sessions following clinical and/or simulated audio-visual presentations	Demonstration of Protocol .for tendon repair & splint. (Tendon Gliding exercises, Blocking exercises.)		8	
F4	a	**Crush Injuries of Hand**	Causes, Classification, clinical implications, Tests for evaluation of hand function, grip, pinch, oedema, sensory examination, pre &post operative management in O.T. & splinting. Causes of stiff hand and its management.	10		18
		Practicum/practical/ Labs: Demonstration , Hands on practice on peers, models or clients under supervision, interactive sessions following clinical and/or simulated audio-visual presentations	Edema measurement using standardized methods Grip and pinch strength evaluation using standardized equipment Clinical reasoning in splint prescription for flexion and extension deformities of hand and wrist- live / simulated case presentations. Audio visual interactive sessions.		8	
F5	a	**Brachial Plexus Injuries and Peripheral Nerve Injuries**	Classification of nerve injuries, Clinical manifestations of brachial plexus injuries and peripheral nerve injuries. Evaluation and treatment specific to BPI and PNI. Functional impact and implications.	8		16

SYLLABUS

			Therapeutic techniques, splints and adaptations in management of BPI and PNI.			
		Practicum/practical/ Labs: Demonstration , Hands on practice on peers, models or clients under supervision, interactive sessions following clinical and/or simulated audio-visual presentations	Demonstration of the different splints used in Peripheral Nerve Injuries and Brachial Plexus Injuries. Nerve gliding exercises. Sensory testing – Moberg pick up test. Siemmes Winston's Monofilament. Discussions, deliberations, interactive sessions based on clinical reasoning for all above.		8	
F6	a	**Cancer rehabilitation**	Head, neck, face & breast cancer, its diagnosis & medical & surgical management. Psychological problems associated with cancer. Physical dysfunction issues from cancer. OT techniques used for rehabilitation of cancer patients (Preventive, restorative, supportive). Hospice (palliative aspects), family systems and the need for treatment of the family as the unit of care.	8		16
		Practicum/practical/ Labs: Demonstration , Hands on practice on peers, models or clients under supervision, interactive sessions following clinical and/or simulated audio-visual presentations	Demonstration of management for Mastectomy, Lymphedema. Range and strength exercises. Cosmetic prosthesis. Postural exercises and body image retraining.		8	
F7	a	**Vascular Conditions**	Causes, classification, clinical features of lymphatic, arterial and venous disorders. Management guidelines, Indications and contraindications for exercises. Wound healing, wound classification, intervention. Role of occupational therapists.	6		12

		Practicum/practical/ Labs: Demonstration , Hands on practice on peers, models or clients under supervision, interactive sessions following clinical and/or simulated audio-visual presentations	Demonstration of exercises for arterial, venous disorders. Indications, contraindications, complications of compression techniques. Wound evaluation.		6	
E8	a	**Occupational Therapy in Blind**	Definition and Classification, mobility techniques, communication skills, sensory re-education, emotional and psychological aspects of, Facilities for blind, Prevention of blindness.	4		9
		Practicum/practical/ Labs: Demonstration , Hands on practice on peers, models or clients under supervision, interactive sessions following clinical and/or simulated audio-visual presentations	Mobility training. Training for sensory compensation. Environmental modification.		5	
F9	a	**Occupational Therapy in deaf, dumb**	Definition and classification, communication skills, types and uses of hearing aids, emotional and psychological aspects, facilities for deaf, prevention of deafness, approaches in deaf and dumb rehabilitation, vestibular affectations and re-training.	5		10
		Practicum/practical/ Labs: Hands on practice, interactive sessions	Rehabilitation in Cochlear implants beneficiaries. Cognitive assessment and retraining in congenitally deaf and post cochlear implants.		5	
F10	a	**Obsteric and Gynecology**	Complications related to Pregnancy Effects of aerobic exercises during pregnancy. Antenatal and prenatal exercises. Occupational therapy management during pregnancy and post partum, caesarean child birth and high risk pregnancy.	8		16

SVI Rev I

		Practicum/practical/ Labs: Demonstration , Hands on practice on clients under supervision, interactive sessions following clinical and/or simulated audio-visual presentations	Demonstration of antenatal and post natal, pelvic floor strengthening, Kegel's exercises. Mother & child care. Indications and contraindications to exercises. Back care: Ergonomic education.		8	

BOOKS RECOMMENDED

1) Occupational Therapy – Willard &Spackman.

2) O.T. Practice Skills for Physical Dysfunction – Pedretti.

3) O.T. in Physical Dysfunction – Scott.

4) Therapeutic Exercise – Basmajian.

5) Rehab Medicine – Goodgold.

6) Rehabilitation of Hand – Wynn & Parry.

7) Hand – Hunter.

8) Hand splinting – Fess

9) Therapeutic exercise – Kissner.

10) Physical rehabilitation, assessment & treatment – Suzan O' Sullivan.

Syl Rev I

SCHEME OF THEORY EXAMINATION:

Distribution of maximum marks for the subject having 100 marks shall be as follows:

University exam - 80 marks Internal Assessment - 20 marks.

Internal Assessment: One exam at the end of each term. Average of total marks obtained to be considered for Internal Assessment.

Duration of papers: 3 Hours

Scheme of theory exam to be conducted out of 80 marks:

Section	Type of Question	Marks Distribution
A **SAQ 50 Marks**	Q 1 - Short Answer Questions any FIVE out of SIX Q 2 - Short Answer Questions any FIVE out of SIX	**(5x3) = 15** **(5x7) = 35**
B **LAQ 30 Marks**	Q 3 - Long Answer Questions any ONE out of TWO Q 4 - Long Answer Questions any ONE out of TWO	**(1x15) = 15** **(1x15) = 15**
	TOTAL	**80 Marks**

PRACTICAL EXAMINATION:

Total marks 100.

University Exam 80 , Internal Assessment-20.

Internal Assessment: One exam at the end of each term. Average of total marks obtained to be considered for Internal Assessment.

The distribution of marks for University exam to be conducted out of 80 marks:

Section	Type of Question	Marks Distribution
A.	**Long Case**	**40 marks**
B.	**Short Case**	**20 marks**
C.	**Viva Voce**	**15 marks**
D	**Communication skills**	**05 marks**

Third B.O.Th Transcript hours [1462]

Headings and Definitions:

Didactic:

Didactic teaching involves class room teaching on theory topics to build the foundations and concepts in clinical practice.

Practical: Are hands on sessions practiced on peers, models or patients, bed side clinics, outpatient clinics, clinical case discussions in the units or outpatient departments; demonstration of evaluation, investigative, treatment procedures are accounted in the practical hours.

Practicum: Topics in the form of seminars prepared by students and presented in the class room to elicit interactive discussions, clinical reasoning.

Labs: Are actual practice sessions on patients, peers or models to allow interpretation of results, learning to record cardio-pulmonary parameters, radiographic correlating, Blood analysis & profiles and procedures to therapy will be included in the labs; may include any other lab procedures and chart reviews.

Reflective writing: Includes journal writing, log book maintenance; in the clinical field work includes writing of case records , evaluations, goals, intervention plans, documenting therapeutic procedures in intervention.

Clinical Field work: Actual clinical work in clinical settings, all hands on procedures related to patient care, involves chart reviews patient evaluation, assessment, goal planning, writing, and execution of goals, intervention procedures, patient and family education. Reflective writing pertaining to individual cases may be considered as a part of field work.

Bed side and outpatient teaching, ward rounds and discussions are considered a part of field work, discharge planning, assessment for community reintegration and home assessments are also included in clinical field work training.

The third year includes:

Practice, observation, applications and discussions in actual clinical settings in the form of:

a] Medical module:
Outpatient departments, clinics, ICU'S, bed side units in - paediatric, orthopaedic, psychiatric, surgery and medical units, cardio-vascular – thoracic, pulmonary units.

b] Rehabilitation module Occupational Therapy

Placements for Clinical field work III practice:

Sr. no	
1	Occupational therapy applications in General medical conditions. / ICU'S.
2	Occupational therapy applications in General surgical conditions./ ICU'S
3	Cardio-pulmonary conditions and surgeries/ ICU'S.
4	Micro vascular and plastic surgery conditions/ burns and ICU's
5	Community and outpatient clinic

Recommended Clinical practice in Occupational therapy under supervision and/or partial supervision of a faculty or clinical supervisor.

Includes –Evaluation, assessment using standardized tools, goal planning execution of therapy, goal modification, assessment for discharge planning, patient and care giver education on home exercises, maintenance and safety issues.

During each clinical assignment, the student shall focus on arriving at a functional diagnosis, practice clinical skills on patients under the supervision and/or partial supervision of clinical &/or teaching faculty

Shall maintain folders in which prescribed number (Minimum 5) of case records and written assignments shall be documented. The student shall obtain signatures and remarks/grades from respective section in- charge at the end of each clinical posting.

Submission of duly signed Clinical Training Record (C.T.R) will be a prerequisite for examination. This record will be maintained as a proof for clinical field work in the third year and shall be produced as a valid document in any event of submission for the future.

Assessment and marking of students in the form of verbal and written (reflective) case presentations by faculty in each area of clinical assignment to ensure clinical competency and ability for professional autonomy in delivery of Occupational Therapy services will be mandatory at the end of each assignment.

Credits:

10 hours of classroom teaching are equated as one credit.

15 hours of practical, practicum, or lab work, reflective writing are equated as one credit.

30 hours of clinical field work offers one credit.

Supervised Clinical Field Work III (Total: 588 Hours)

Sr. No.	Assignments/Clinical Fieldwork Postings	Total Hours	Total Duration in weeks
1.	Surgery (General surgery & Plastic Surgery)	147	8 weeks
2	Medicine (General medicine, Heamatology & Dermatology)	147	8 weeks
3.	Community & Out Patient Department	147	8 weeks
4.	Cardiac and Respiratory(Surgery & Medicine)	147	8 weeks
5.	Visits: NAB, AIIPMR, Institutes for Cancer Rehabilitation	24	--

Field work visits:

Objectives of visits:
Blind rehabilitation
Cancer Rehabilitation./ Hospice care
Leprosy residential and rehab setting.
Prosthetic center: Pre prosthetic training for upper and lower extremity amputee, check out of the prosthesis, prosthetic training,
Labour Institute

Syll Rev I

Hours and Credits in the Third Year:

Subject code	Subject	Didactic		Practical /Practicum/ labs		Field work		Total	
		Hours	Credits	Hours	Credits	Hours	Credits	Hours	Credits
BOT III/01	Medicine	121	12.1	67	4.47	42	1.4	230	17.97
BOT III /02	Surgery /Orthopedics	88	8.8	64	4.27	42	1.4	194	14.47
BOT III /03	Psychiatry	39	3.9	35	2.33	20	0.67	94	6.9
BOT III /04	Work Physiology & Ergonomics	32	3.2	6	0.4	0	0	38	3.6
BOT III /05	OT-application in Medical conditions	61	6.1	86	5.73	294	9.8	441	21.63
BOT III /06	OT-application in Surgical condition	75	7.5	72	4.8	294	9.8	441	22.1
	Field Work Visits (7)					24	0.8	24	0.8
	TOTAL					716	23.87	1462	87.47

Signature of program director& HOD

Seal of the school.

FOURTH YEAR B.O.Th.
BACHELOR IN OCCUPATIONAL THERAPY
[REVISED VERSION –I]

Fourth B. O. Th.

Subject Code	Subjects
BOT-IV/01	Advances in Occupational Therapy and Rehabilitation Medicine
BOT-IV/02	Occupational Therapy in Orthopedic Conditions
BOT-IV/03	Occupational Therapy in Neurological and Developmental conditions
BOT-IV/04	Occupational Therapy in Psychiatry
BOT-IV/05	Community Based Occupational Therapy and Rehabilitation
BOT-IV/06	Biostatistics and Research Methodology

OBJECTIVES OF THE COURSE

DIDACTIC- COGNITO-PERCEPTUAL OBJECTIVES:

Student in the fourth year will-

- Understand and execute neurologic tests, tests of posture, balance, perception, cognition, learning, motor control and mobility for evaluation, assessment and intervention in ADLs.
- Identify patho-physiologic features of neuro-anatomy; apply relevance of occupational therapy intervention in adult and pediatric population.
- Apply knowledge of the major developmental theories and factors influencing the normal developmental process.
- Recognize diagnoses, pharmacology effects on psychiatric illness, the events and effects of each on resolution and or aggravation of untoward effects as observed in therapy intervention.
- Utilize lifespan approaches in evaluating physiological, psychological, psychosocial and societal effects of substance abuse on individuals and families. Review major category of drugs, their effects and withdrawal symptoms, discuss various theories and Frames of references used in Occupational therapy intervention mental health and substance abuse.
- Understand the major tools of assessment and practice frame work in contemporary framework of mental health sciences.
- Be able to identify the importance of group dynamics in theory and practice, structure and function of groups in treatment, analysis of group treatment and group activities.
- Community Based Rehabilitation: be able to evaluate health factors in context to socio-cultural trends, formulate need based community integration and wellness programs for maintenance and intervention.
- Orthopedic Rehabilitation: Competently assess and evaluate musculoskeletal factors in injuries and disease conditions to plan appropriate intervention measures as pertaining to occupational performance; remediate performance components using manual and functional techniques, transfer effects of thereto in real life situations.

CLINICAL FIELDWORK- IV -OBJECTIVES: COGNITO-PERCEPTUAL-MOTOR

- Will offer an in depth clinical experience in delivery of occupational therapy services, to promote clinical reasoning and reflective practice.
- Offer development of competency and expand a repertoire of Occupational Therapy assessments and interventions spread over a the field work training hours with clinical reasoning related to goal planning and intervention in areas of Advances in Occupational Therapy and Rehabilitation, Musculoskeletal conditions, Neurological and Developmental disorders, Gerontology, Mental health, De-addiction and Substance use Disorders and Community Based Rehabilitation practices.
- Provides insight for application of referral strategies and design evidence based practice for future professional development.
- Reinforces application of skills of evaluation and intervention in each of the areas of placement by observation and hands-on practice.

SYLLABUS

Total Transcript Hours – 1462

Subject Code.	Fourth (Final Year) B. O.Th. Subjects	Didactic (Theory Class) Hours	Practical (Clinical Class) Hours	Supervised Clinical Field Work (Inpatient + Outpatient Hours)	Total Hours
BOT-IV/01 A	Advances in Occupational Therapy and Rehabilitation Medicine	75	60	30	165
BOT-IV/02 B	Occupational Therapy in Orthopaedic conditions	75	60	216	351
BOT-IV/03 C	Occupational Therapy in Neurological and Developmental conditions	75	60	216	351
BOT-IV/04 D	Occupational Therapy in Psychiatry	75	60	216	351
BOT-IV/05 E	Community Based Occupational Therapy and Rehabilitation	100	35	54	189
BOT-IV/06 F	Biostatistics and Research Methodology	36	19	Nil	55
	Total Hours	436	294	732	1462

Syl Rev I

BOT-IV/01

Advances in Occupational Therapy and Rehabilitation Medicine

(Didactic 75 hours + Practical 60 hours + Supervised clinical practice 30 hours

= Total 165 hours)

COURSE DESCRIPTION:

Areas covered include mobility, seating positioning systems, adapted toys, computer access, Environmental Control Units (ECU), Assistive Technological Devices (ATD), Vocational and living aids, in order to adapt to environment and improve clients Quality Of Life (QOL).

Sr No	TOPIC	Didactic hours	Practical hours	Total hours
1	Ethics and OT	02	02	04
2	Service Management	06	06	12
3	Human and Non-human Environment	04	02	06
4	Industrial Rehabilitation	06	04	10
5	Home Care & Private Practice	04	02	06
6	Wellness program & preventive therapy	04	02	06
7	Assistive technology	08	04	12
8	Stress management	04	06	10
9	Introduction to Human Sexuality in relation to disability management	04	-	04
10	Pain management in OT	04	03	07
11	Physical agent modalities	08	10	18
12	Adjunctive therapies	19	19	38
13	Introduction to Evidence based practice & professional reasoning in OT	02	-	02
	TOTAL	75	60	135

SI Rev I

Sr. No.		Topic	Content	Didactic Hours	Practical Hours	Total hours
AI	**a**	**ETHICS IN OCCUPATIONAL THERAPY.**	Key Terms in Ethical issues. Ethical Jurisdiction of the Standards and Code of Ethics of All India Occupational Therapist's Association (AIOTA) & American Occupational Therapy Association (AOTA). Ethical dilemmas and conflicts in Occupational Therapy practice, Problem solving issues.	02		04
		Practical/Practicum/Labs: Demonstration, practice on patients, clinical and simulated case presentations followed by interactive discussions to elicit clinical reasoning.	Case presentations and audio-visual presentations with ethical dilemmas and conflicts that need resolution and problem solving related to decision making to deliver therapy services. Interactive sessions followed by the above.		02	
A2.	**SERVICE MANAGEMENT**			06	06	12
	a	Functions and Strategies:	i. Definition of administration. ii. Management styles. iii. Management by Objectives. iv. Hierarchy in Organization. v. Organizational Pattern. vi. Job description. vii. Job Specification. viii. Policies and procedures. ix. Productivity.	01	01	02
	b	Quality Assurance (QA):	i. What is Quality Assurance? ii. Quality Assurance History. iii. Utilization Review. iv. Program Evaluation. v. Quality Assurance Monitoring.	01	01	02
	c	Fiscal Management:	i. Budgeting. ii. Type of Budgeting, Process and methods. iii. Balance sheet. iv. Direct versus indirect costs. v. Chart of accounts.	01	01	02
	d	Marketing:	i. Marketing plan. ii. Consumer research.	01	01	02

	e	Documentation.	i. Guidelines for documentation. ii. Relevant, Understandable, Measurable, Behavioural Assessment .(RUMBA). iii. Problem Oriented Medical Record(POMR). iv. Subjective Objective Assessment and Planning.(SOAP). v. SMART vi Goal Attainment Scale (GAS). vii Computerized documentation.	02		04
		Practical/Practicum/Labs: Demonstration, practice on patients, clinical and simulated case presentations followed by interactive discussions to elicit clinical reasoning.	Identifying management styles, Job descriptions, job specifications, policies and procedures, use of documentation in various clinical settings and situations.		02	
A3.	a	**The Human and Non Human Environments and the Occupational Therapy Process.**	Definition of environment & types of environment. Components of human and non-human environments, science of environmental psychology. Its application to the practice of Occupational Therapy.	04		06
		Practical/Practicum/Labs: Demonstration, practice on patients, clinical and simulated case presentations followed by interactive discussions to elicit clinical reasoning.	Evaluate two patients at discharge for their work and home environments and document in the log books/or in the P-form. Identify and discuss environments on audiovisual presentations as simulated cases.		02	
A4.		**INDUSTRIAL REHABILITATION**		06	04	10
	a	Introduction	Historical Aspects for the development of Industrial Rehabilitation. Industrial Rehab team. Different Product lines of Industrial Rehabilitation.	03		10
	b	Work assessment:	Work Conditioning and Hardening. Classification of Work Levels.	03		

			Work, Physical and Functional Capacity Evaluation. Job Analysis. Ergonomic Consultation. Physical Injury Prevention Program. Symptom Magnification. Expert Witness Testimony. Consultation for Vocational Training.			
		Practical/Practicum/Labs: Demonstration, practice on patients, clinical and simulated case presentations followed by interactive discussions to elicit clinical reasoning.	On-site evaluations for 3 jobs sweeping, computing, gardening - problem identification in context to postures and positions. Ergonomic consultations preventive and problem solving for same.		04	
A5	a	**Home Care and Private Practice**	Home care delivery model, its implementation, parameters of Homecare, delivery service, skills required for effective practice, constraints, influence of various issues that shape home care practice. Role of Occupational Therapy practitioner in private practice.	04		06
		Practical/Practicum/Labs: Clinical and simulated case presentations followed by interactive discussions to elicit clinical reasoning.	Assessment for readiness to discharge. Home assessment. Identification of constraints on situations, clinical cases or simulated cases.		02	
A6	a	**Wellness Programs & Preventive Therapy**.	Definition of health, health promotion and wellness. Role of an occupational therapist in wellness programs and preventive therapy.	04		06
		Practical/Practicum/Labs: Demonstration, practice on patients, clinical and simulated case presentations followed by interactive discussions to elicit clinical reasoning.	Community groups - Prevention in Cardiac patients, Joint Protection techniques in females, RA, psychosocial training in chronic illness, weight management, mother and child care groups.		02	
A7		**ASSISTIVE TECHNOLOGY**		08	04	12
	a	**Assistive technology solutions**	The HAAT Model Strategies and methods of clinical implementation in the following-	04		06

			i. Posture. ii. Mobility. iii. Communication. iv. Manipulation. v. Sensory. vi. Cognition. vii. Motor. viii. ADL. ix. Affective.			
		Practical/Practicum/Labs: Demonstration, practice on patients, clinical and simulated case presentations followed by interactive discussions to elicit clinical reasoning.	Applications in context to above as seminar presentations, audiovisual, Simulated and Clinical case presentations.		02	
	b	**Computer Application in Occupational therapy**	Technology; assistive & computer technology application in OT Use of computer as a tool in clinical implementation Software selection criteria & methods. Method of clinical implementation in motor, sensory, cognition, ADL, affective domain.	04		06
		Practical/Practicum/Labs: Demonstration, practice on peers, models and patients, clinical and simulated case presentations followed by interactive discussions to elicit clinical reasoning.			02	
A8	a	**Stress Management**	Definitions, types and physiology of stress. Stress factors, stress response and techniques in stress management.	04		10
		Practical/Practicum/Labs: Demonstration, practice on patients, clinical and simulated case presentations followed by interactive discussions to elicit clinical reasoning.	Application of Mental techniques- i. Jacobson's. ii. Shavasana. iii. Breathing techniques. iv. Biofeedback. v. Acupressure. vi. Mental imagery. vii. Lifestyle management groups. viii. Laughter.		06	
A9	a	**Introduction to Human Sexuality in relation to**	Definition of sexuality. Sexuality developmental	04		04

		Disability Management in Occupational Therapy.	milestones & response cycle. Role of nervous system in Sexual functions, effect of nervous, cardiac & pulmonary dysfunctions on sexual functioning. Levels & formats provided to patients regarding sexual counseling appropriate to Occupational Therapy. Models of intervention in sexual problems. PLISSIT MODEL.			
A10	a	**Pain Management in Occupational Therapy**.	Definition, Classification, Assessment of pain, pain behaviors & intervention methods as applied in Occupational Therapy. Theories and principles of pain management in various Neuro-Musculo-Skeletal conditions. Mechanism of wound healing and pain perception.	04		07
		Practical/Practicum/Labs: Demonstration, practice on patients, clinical and simulated case presentations followed by interactive discussions to elicit clinical reasoning.	Demonstration and Hands- on practice using manual, mental techniques and using PAM to enhance occupational participation. Use of Myo-fascial release, soft tissues techniques Mental imagery, diversion and relaxation techniques Acupressure Breathing techniques. Assessment of participation in relevant purposeful tasks to improve restricted task performance.		03	
A11.		**Physical Agent Modalities.**	Principles and regulatory guidelines for the use of physical agent modalities. Introduction, clinical application, precautions and contraindications of various physical agents such as thermal modalities, electrotherapy and therapeutic ultrasound and laser therapy.	08		18

		Practical/Practicum/Labs: Demonstration, practice on peers, models and patients, clinical and simulated case presentations followed by interactive discussions to elicit clinical reasoning.	Practice of TENS, Ultrasound, thermal modalities, laser, Neuromuscular electrical stimulation (NMES), IFC as adjunct to Occupational therapy intervention to improve task performance.		10	
A12	**ADJUNCTIVE THERAPIES:**			19	19	38
	a	Biofeedback	Definition of biofeedback. Principles, foundations and elements of biofeedback system. Neurophysiological clinical reasoning in biofeedback system. Types of biofeedback system and clinical applications with advantages of biofeedback system as an adjunct to Occupational Therapy.	04		08
		Practical/Practicum/Labs: Demonstration, practice on patients, clinical and simulated case presentations followed by interactive discussions to elicit clinical reasoning.	Biofeedback techniques, EMG biofeedback, use of audio-visual and associated biofeedback techniques.		04	
	b	Yoga as an adjunct to Occupational Therapy	Principles and physiological effects of yogic postures and breathing practices in yoga. Basic postures of Yogasana and Pranayama. Clinical applications, indications, contraindications and precautions in yogic exercise prescriptions. Relaxation , meditation practices in yoga, therapeutic applications in OT.	06		14
		Tai Chi as an adjunct to Occupational Therapy	Introduction, concepts of practice, relation to Occupational therapy practice as an adjunct, whole body co-ordination application to improve balance, preparatory towards spatial performance and navigation.			
		Practical/Practicum/Labs: Demonstration, practice on patients, clinical and	Practice of basic yoga postures, breathing patterns and Pranayama.		08	

		simulated case presentations followed by interactive discussions to elicit clinical reasoning.	Basic patterns of Tai Chi to improve balance and motor control.			
	c	Aquatic Therapy	Properties of water and principles of aquatic therapy. Definition, Goals, Indications, Precautions & Contraindications of aquatic therapy. Types of aquatic exercises and clinical application	01		01
	d	Kinesio-taping	Introduction, basic functional concepts of Kinesio-taping and description of Kinesio- tape. Types of tapes and taping. Kinesio-taping application technique, indications, precautions and contraindications of Kinesio-taping technique and its clinical applications.	04		08
		Practical/Practicum/Labs: Demonstration practice on peers, and patients, clinical and simulated case presentations followed by interactive discussions to elicit clinical reasoning.	Two techniques each on shoulder, elbow, hand, spine, hip, knee, ankle.		04	
	e	Myo-fascial Release.	Introduction, concepts, anatomy and physiology of the fascia. Structural and Physiological effects of Myo-fascial release techniques. Various techniques of Myo-fascial release and interventions for the treatment of contractures, body posture and balance.	03		06
		Practical/Practicum/Labs: Demonstration, practice on peers, models and patients, clinical and simulated case presentations followed by interactive discussions to elicit clinical reasoning.	Two techniques each on upper and lower body and spine.		03	
	f	Acupressure and Acupuncture	Introduction, history, methods, examination and evaluation, the law of 5 elements. Benefits of acupressure and	01		01

			acupuncture interventions and prescription of interventions. Acupressure points for pain and soft tissue tightness to enhance function.			
A13	a	**Introduction to Evidence Based practice & Professional reasoning in OT**	Introduction & Definition of Evidence Based Practice Introduction to Professional Reasoning Aspects of professional reasoning (Scientific, Narrative, Pragmatic, Ethical & Interactive reasoning)	02		02
		Total Hours		75	60	135

BOOKS RECOMMENDED:

1. Willard and Spackman's Occupational Therapy by Elizabeth BlesedellCrepeau, Ellen S. Cohn, Barbara A. Boyt Schell. Published by Lippincott Williams & Wilkins
2. Occupational Therapy - Practice Skills for Physical Dysfunction by Lorraine Williams Pedretti. Published by Mosby
3. Occupational Therapy for Physical Dysfunction by Catherine A. Trombly, Mary Vining Radomski. Published by Lippincott Williams & Wilkins
4. Therapeutic Exercise by John V. Basmajian& Steven L. Wolf. Published by Williams & Wilkins
5. Krusen's Handbook of Physical Medicine& Rehabilitation by Frederick J. Kottke, Justus F. Lehmann. Published by W. B. Saunders
6. Rehabilitation Medicine, Principles & Practice by Joel A. DeLisa, Bruce M. Gans. Published by Lippincott Williams & Wilkins
7. Biofeedback: Principles & Practice for Clinicians by John V. Basmajian. Published by Williams & Wilkins
8. Therapeutic Exercise, Foundation & Techniques by Carolyn Kisner& Lynn Allen Colby. Published by F. A. Davis Company
9. Hunter, Mackin, Callahan's Rehabilitation of the Hand and Upper Extremity by Evelyn Mackin, Anne D. Callahan. Published by Mosby
10. Yogic Exercises, physiologic and psychic processes by S. Dutta Ray. Published by Jaypee Brothers
11.Occupational Therapy and Mental Health by Jennifer Creek. Published by Churchill Livingstone
12. Neurological Rehabilitation by Darcy A. Umphred. Published by Mosby
13. Physical Agent Modalities: Theory and Application for the Occupational Therapist by Alfred G. Bracciano. Published by Thorofare NJ SLACK Inc
14. Rehabilitation Medicine by Joseph Goodgold. Published by The C.V. Mosby Company

SCHEME OF THEORY EXAMINATION:

Distribution of maximum marks for the subject having 100 marks shall be as follows:
University exam - 80 marks, Internal Assessment - 20 marks
Duration of papers: 3 Hours
Internal assessment - One exam at the end of each term. Average of total marks obtained to be considered for internal assessment.

Scheme of exam to be conducted out of 80 marks:

Section	Type of Question	Marks Distribution
A	Q 1 - Short Answer Questions any FIVE out of SIX Q 2 - Short Answer Questions any FIVE out of SIX	(5x3) = 15 Marks (5x7) = 35 Marks
B	Q 3 - Long Answer Questions any ONE out of TWO Q 4 - Long Answer Questions any ONE out of TWO	(1x15)=15 Marks (1x15)=15 Marks
	TOTAL	80 Marks

Syll Rev I

BOT-IV/02

Occupational Therapy in Orthopaedic Conditions

(Didactic 75 hours + Practical 60 hours + Supervised Clinical Fieldwork 216 Hours = Total 351 Hours)

Course description:
Course provides knowledge and competency to examine injury, illness, disease and its impact on performance areas of work, self care and leisure. It prepares students with theoretical concepts of manual techniques in improving range, strength, co-ordination concomitant to acquiring specific skills of performance to meet real life situations & enhances clinical reasoning skills based on the Didactic Learning and Clinical Practice.

Sr. No.	TOPIC	Didactic Hours	Practical Hours	Total
1	Orthopedic Clinical Evaluation	06	12	18
2	Congenital Musculoskeletal Conditions	06	04	10
3	Fractures of Upper & Lower Extremity	27	12	39
4	Injuries at & around Upper & Lower extremity joints	08	06	14
5	Pathological & Arthritic Conditions of Upper & lower extremity	06	06	12
6	Pathological Condition of Vertebral column & Spinal Cord	04	04	08
7	Neuromuscular conditions	04	04	08
8	Work Related Musculoskeletal Disorders	04	04	08
9	Metabolic Bone Disorder	04	04	08
10	Introduction to Sports Medicine	06	04	10
	TOTAL	75	60	135

Syll Rev I

Sr. No.		Topic	Content	Didactic Hours	Practical Hours	Total Hours
B1.	a	**Orthopaedic Clinical Evaluation.**	Clinical evaluation of upper extremities, lower extremities and spine including special and specific tests and clinical signs. Diagnosis of function and performance using Occupational Therapy tools. Frames of References & Models of Approaches as applied to Musculoskeletal Rehabilitation.	06		18
		Practical/Practicum/Labs: Demonstration, practice on models and patients, clinical and simulated case presentations followed by interactive discussions to elicit clinical reasoning.	Evaluate and identify two problems each of UE/LE/Spine – relate the functional limitation due to the problem, identify soft tissue and bony problems.		12	
B2.	a	**Congenital Musculoskeletal Conditions.** Occupational Therapy Management orthotic prescriptions, soft tissue techniques and adaptive techniques in the following common congenital musculoskeletal conditions:	Definition of Congenital anomalies. Classification of Congenital musculoskeletal anomalies. i. Congenital Torticollis, ii. Radial club hand, iii. Congenital dislocation of hip and knee, iv. Congenital club -foot.	06		10
		Practical/Practicum/Labs: Demonstration, practice on patients, clinical and simulated case presentations followed by interactive discussions to elicit clinical reasoning.	Evaluate the bony and soft tissue structures, plan intervention strategies either on simulated cases or clinical cases presented in the class. Discuss future issues.		04	
B3	a	**Fractures of Upper Extremity & Lower Extremity.**	Definition, Mechanism of Injury, Orthopaedic and Occupational Therapy management of fractures of upper extremities & lower extremities.	27		39

	b	Management of complications.	Reflex sympathetic dystrophy (complex regional pain syndromes), Volkmann's ischemic contracture, Myositis-Ossificans.			
	c	Fixators –Internal and External.	Classification, types. Therapeutic intervention in Occupational Therapy with respect to the type of fixation (internal &external) and related Precautions.			
	d	Orthosis:	Definition, Classification, Indications, Principles and Materials used. Orthotic components, terminology used in the Upper, Lower extremity and Spinal Orthosis. Classification, Principles, indications, goals, brief description related to each of the following: i. Upper Extremity Orthosis - shoulder, elbow, forearm and wrist hand orthosis [fabrication]. ii. Lower Extremity Orthosis – Hip, Knee, Ankle orthosis and footwear modification.			
	e	Fractures of Vertebral Column.	Definition, Mechanism of Injury, Occupational Therapy intervention in respect of orthopedic management.			
	f	Motor and sensory issues at spinal levels.	Assessment of clinical signs and functional problems. Strategies to optimize motor, sensory components of function. Orthotic prescriptions, wheelchair prescription, skin care &transfers. Bladder management. Assessments for return to community and job.			
	g	Spinal Orthosis: Cervical, Thoraco - lumbar Lumbar.	Classification, Biomechanical Principles of prescription, indications, contraindications. With description of each.			
		Practical/Practicum/Labs: Demonstration, practice on patients, clinical and simulated case presentations	Present simulated or live presentation of clinical cases. Practical in the form of fabrication one cervical collar,		12	

		followed by interactive discussions to elicit clinical reasoning.	simulated cases and recommendations for lumbar, thoracic spine.			
B4	a	**Injuries at and around Joints of Upper and Lower Extremities**.	Definition and Mechanism of Injuries at and around joints of upper and lower extremities. Arthroscopic and open surgical intervention. Preventive therapy and Post injury as well as post surgical occupational therapy management.	08		14
		Practicum/ Practical/ Labs: Demonstration, interactive sessions follows clinical and/or simulated audio-visual presentations.	Practical with respect to patient education, preoperative group education, post op precautions for knee shoulder, hip surgeries. Adaptations in ADLs.		06	
B5	a	**Pathological and Arthritic conditions of Upper & Lower Extremity joints.**	Types of arthritis and their Aetio-pathogenesis. Conservative, arthroplasty and other surgical interventions with occupational therapy rehabilitation program.	06		12
		Practicum/Practical/ Labs: Demonstration, interactive sessions following clinical and/or simulated audio-visual presentations.	Practical with respect to patient education, preoperative group education, post op precautions for UE & LE surgeries. Adaptations in ADLs and Energy Conservation techniques.		06	
B6	a	**Pathological conditions of Vertebral Column and Spinal Cord.**	Various conditions of vertebral column and spinal cord and their Aetio-pathogenesis. Conservative and post-surgical interventions using occupational therapy rehabilitation techniques.	04		08
		Practicum/ practical/ Labs: Demonstration, interactive sessions following clinical and/or simulated audio-visual presentations.	Precautions, patient education with demonstration, work and task modification, psycho-social and educational groups.		04	
B7	a	**Neuromuscular Conditions: Poliomyelitis and Cerebral Palsy**	Reconstructive surgeries in poliomyelitis and cerebral palsy including limb lengthening Procedures. Post-surgical Occupational	04		08

			Therapy management with emphasis on orthotic and splinting prescriptions.			
		Practicum/Practical/ Labs: Demonstration, interactive sessions following clinical and/or simulated audio-visual presentations.	Rehabilitative and preventive post surgical care.		04	
B8	a	**Work Related Musculoskeletal Disorders** (Cumulative Trauma Disorders).	Definition. Classification and Mechanism of injury of work related musculoskeletal disorders of upper extremities, lower extremities and spine. Preventive and Restorative approach based on Ergonomic and Biomechanical principles. Occupational Therapy Assessment and Management in various phases of injury; with emphasis on safe return to ADL, Work & Productive Activities and Leisure Activities.	04		08
		Practicum/Practical/ Labs: Demonstration, interactive sessions following clinical and/or simulated audio-visual presentations	Postural training, seating, preventive measures related to cumulative CTD in industrial and corporate workers.		04	
B9	a	**Metabolic Bone Disorders-**Rickets. Osteomalacia. Osteoporosis. Hyperparathyroidism.	Definition, Classification and Aetio-pathogenesis. Preventive, Accommodative and Restorative approach in occupational therapy management.	04		08
		Practicum/Practical/ Labs: Demonstration, interactive sessions following clinical and/or simulated audio-visual presentations	Rehabilitative and preventive post surgical care.		04	
B 10.	a	**Introduction to Sports Medicine.**	Common sports injuries. Physical fitness, cardiopulmonary fitness, prerequisites for participation in sports. Therapeutic role of participation in sports. OT as a team member. Role of an Occupational Therapist	06		10

			in return to sports.			
		Practicum/Practical/ Labs: Demonstration, interactive sessions following clinical and/or simulated audio-visual presentations.	Problem evaluation assessment for sports in juries		04	
		Total Hours		75	60	135

BOOKS RECOMMENDED:

1. Orthopaedic Physical Assessment by David J. Maggee Published By W. B. Saunders.
2. Willard and Spackman's Occupational Therapy by Elizabeth BlesedellCrepeau, Ellen S. Cohn, Barbara A. Boyt Schell. Published by Lippincott Williams & Wilkins.
3. Occupational Therapy for Physical Dysfunction by Catherine A. Trombly, Mary Vining Radomski. Published by Lippincott Williams & Wilkins.
4. Occupational Therapy - Practice Skills for Physical Dysfunction by Lorraine Williams Pedretti. Published by Mosby.
5. Occupational Therapy and Physical Dysfunction: Principles, Skills and Practice by Annie Turner, Marg Foster, Sybil E. Johnson. Published by Churchill Livingstone.
6. Therapeutic Exercise by John V. Basmajian& Steven L. Wolf. Published by Williams & Wilkins.
7. Therapeutic Exercise, Foundation & Techniques by Carolyn Kisner& Lynn Allen Colby. Published by F. A. Davis Company.
8. Treatment and Rehabilitation of Fractures by Stanley Hoppenfield and Vasantha L. Murthy. Published by Lippincott Williams & Wilkins.
9. Clinical Orthopaedic Rehabilitation by S. Brent Brotzman Published by Mosby.
10. Krusen's Handbook of Physical Medicine& Rehabilitation by Frederick J. Kottke, Justus F. Lehmann. Published by W. B. Saunders.
11. Rehabilitation Medicine, Principles & Practice by Joel A. DeLisa, Bruce M. Gans. Published by Lippincott Williams & Wilkins.
12. Physical Rehabilitation by Susan B. O'Sullivan, Thomas J. Schmitz. Published by F. A. Davis Company, Indian Reprint by Jaypee Brothers.
13. PaediatricOrthopaedics and Fractures by W.J.W. Sharrard. Volume 1 & 2.Published by Blackwell Scientific Publications.
14. Apley's System of Orthopedics& Fractures by A. Graham Apley, Louis Solomon. Published by Butterworth Heinemann.
15. Rehabilitation of the Hand by C. B. Wynn Parry. Published by Butterworths.
16. Ergonomics for therapists by Karen Jacobs. Published by Butterworth Heinemann.
17. Clinical Sports Medicine by Peter Brukner&Karim Khan. Published by The McGraw-Hill Companies.

SCHEME OF EXAMINATION:
Total marks 200: Theory Examination: 100 & Clinical/Practical Examination: 100.
Theory: 100 Marks (University Exam: 80 Marks, Internal Assessment: 20 Marks)
Clinical/Practical: 100 Marks (University Exam: 80 Marks, Term work/Field work: 20 Marks)
A) Distribution of maximum marks for the subject having 100 marks shall be as follows:
University exam - 80 marks, Internal Assessment - 20 marks
Duration of papers: 3 Hours

Scheme of exam to be conducted out of 80 marks:

Section	Type of Question	Marks Distribution
A SAQ 50 Marks	Q 1 - Short Answer Questions any FIVE out of SIX Q 2 - Short Answer Questions any FIVE out of SIX	(5x3) = 15 Marks (5x7) = 35 Marks
B LAQ 30 Marks	Q 3 - Long Answer Questions any ONE out of TWO Q 4 - Long Answer Questions any ONE out of TWO	(1x15) = 15 Marks (1x15) = 15 Marks
	TOTAL	80 Marks

SCHEME OF CLINICAL/PRACTICAL EXAMINATION: Total 100 marks
Term work: 20 Marks (Internal Assessment during clinical field work and ward exams, Attitude: assessment of On-going clinical performance - i.e. initiative, case reports, regularity; case presentations, seminars, etc)

University Examination: 80 Marks
One Long case: 40 Marks
Short case/simulated case: 20 marks
Viva voce/ Spots: 15 Mark
Communication Skills: 5 marks

Long case to include detailed evaluation, treatment goal setting & future planning of a single patient.
Short case to include evaluation of a specific component of a single patient & goal setting for a specific component or demonstration of clinical skills.

BOT-IV/03

Occupational Therapy in Neurological & Developmental Conditions

(Didactic 75 hours + Practical 60 hours + Supervised Clinical Fieldwork 216 Hours = Total 351 Hours)

COURSE DESCRIPTION:

Neurosciences- Presents systems approach to neurosciences. It focuses on organization, and function of ANS, PNS CNS systems. It presents with Clinical relevance of neurologic tests, postural control, and balance, cognition, perception and learning, locomotion, co-ordinated movements in execution of function.

Pediatric theory and practice: Provides students with knowledge of the major developmental theories and factors influencing the normal developmental process. It examines developmental norms and sequences & emphasizes on physical [sensory and motor] cognitive, language and psychosocial evaluation as appropriate to age and developmental stages, selection of tools, treatment and intervention strategies. Reviews major causes of disability, etiology, and prognoses with respect to abnormal development, acute and chronic illness, inherited conditions, and conditions of the musculoskeletal system, present theories, assessments, and treatment processes pertaining to current practices in school based occupational therapy.

Sr, No	TOPIC	Didactic Hours	Practical Hours	Total hours
1	Neurological Clinical Evaluation	06	08	14
2	Disorders of the Cerebral Circulation	06	04	10
3	Traumatic injuries to the Brain	04	03	07
4	Infective Conditions of the Brain	04	04	08
5	Neoplastic Conditions of Brain & Spine	04	04	08
6	Disorders of the Basal Ganglia	04	04	08
7	Inflammatory & Autoimmune disorders of Brain & the Spine	04	02	06
8	Diseases Of Motor Neuron, Neuromuscular junction & muscles	04	03	07
9	Seizure Disorders	04	02	06
10	Cerebellar Dysfunctions	03	02	05
11	Vestibular Dysfunctions	03	02	05
12	Cranial Nerve Dysfunctions	03	02	05
13	Cognito motor Perceptual Skills & Dysfunctions	04	02	06
14	Dysphagia	02	02	04
15	Developmental Disabilities	20	16	36
	TOTAL	**75**	**60**	**135**

Sr. No.		Topic	Content	Didactic Hours	Practical hours	Total Hours
C1.	a	**Neurological Clinical Evaluation**	Neurological evaluations for cortical, sub cortical, cerebellar, spinal and peripheral nervous system dysfunctions. Frames of References as applied to Neuro-rehabilitation.	06		14
		Practicum/Practical/ Labs: Demonstration, interactive sessions following clinical and/or simulated audio-visual presentations	Evaluation or identification of abnormal function, functional limitation related to the same and application of a FOR for intervention.		08	
C2.	**a**	**Disorders of the Cerebral Circulation.** Cerebral Vascular Accident (CVA)/Stroke Cerebral Embolism & Thrombosis Hypertensive Encephalopathy Cerebral Hemorrhage.	Anatomy & physiology of cerebral circulation Correlation of signs and symptoms to diagnosis. Assessment based on appropriate FOR. Prognostic determinants. Strategies to optimize motor, sensory, balance, visual, cognito –perceptual components of function. Clinical reasoning for selection of therapeutic intervention models- Preventive, Curative Rehabilitative and Adaptive /compensatory.	06		10
		Practicum/Practical/Labs: Demonstration, interactive sessions following clinical and/or simulated audio-visual presentations.	Understand and demonstrate symptoms related to affectation, assess motor status, recovery stages, prescribe appropriate intervention.		04	

C3.	a	**Traumatic Injuries to the Brain.**	Classification of Head Injury & its Mechanism of Injury including Intracranial Hemorrhage. Immediate Effects of Head Injury. Post Head Injury sequel, signs and symptoms. Occupational Therapy assessment tools for level of consciousness, cognition. Standardized Assessments – Glasgow Coma Scale Rancho Los Amigo, Allen's Cognitive Assessment scale for functional prognosis. Assessments based on appropriate FOR. Prognostic determinants. Strategies to optimize motor, sensory, balance, visual, cognito –perceptual components of function. Strategies to optimize motor, sensory, visual, cognito –perceptual components of function.	04		07
		Practicum/Practical/ Labs: Demonstration, Interactive sessions following clinical and/or simulated audio-visual presentations.	Assessment on standard scales and protocols for cognition, alertness, ADL's, practice of remedial therapeutic approaches for management of tone, methods of transfers. Documentation.		03	
C4.	a	**Infective Conditions of the Brain.** Intracranial abscess Meningitis Encephalitis Cerebral malaria	Aetio-pathogenesis, symptomatology Assessment based on appropriate FOR. Prognostic determinants. Strategies to optimize motor, sensory, balance, visual, cognito – perceptual components of function. Clinical reasoning for selection of therapeutic intervention models- Preventive, Curative Rehabilitative and Adaptive /compensatory. Specific and special therapeutic considerations in context to clinical diagnosis	04		08
		Practicum/Practical/	Identifying focal signs of UMN,		04	

		Labs: Demonstration, interactive sessions following clinical and/or simulated audio-visual presentations.	cognitive –perceptual-motor assessment, design learning strategies in clinical settings, assessment for mobility and functioning with safety in environment.			
C5.	a	**Neoplastic Conditions of the Brain and Spine Intracranial & Spinal Tumors.**	Aetio-pathogenesis, Assessment based on appropriate FOR. Prognostic determinants Strategies to optimize motor, sensory, balance, visual, cognito – perceptual components of function.	04		08
		Practicum/Practical/ Labs: Demonstration, Interactive sessions following clinical and/or simulated audio-visual presentations.	Clinical reasoning for therapeutic intervention Decision making with respect to continuation, termination, modification of goals of therapy, discharge planning. Specific and special therapeutic considerations in context to clinical diagnosis.		04	
C6.	a	**Disorders of the Basal Ganglia (Movement Disorders)** **Hypoactive basal ganglia disorders such as:** 1. Parkinsonism 2. Parkinson plus syndromes **Hyperactive basal ganglia disorders such as:** 1. Chorea and Athetosis 2. Dystonia 3. Tardive or Drug Induced Dyskinesias.	Aetio-pathogenesis. Grading stage of disease. Assessment based on appropriate FOR. Prognostic determinants. Strategies to optimize motor, sensory, balance, visual, cognito – perceptual components of function. Clinical reasoning for selection of therapeutic intervention models- Preventive, Curative Rehabilitative and Adaptive /compensatory.	04		08
		Practicum/Practicals/ Labs: Demonstration, Interactive sessions following clinical and/or simulated audio-visual presentations	Clinical reasoning for therapeutic intervention Decision making with respect to continuation, termination, modification of goals of therapy, discharge planning. Specific and special therapeutic considerations in context to clinical diagnosis.		04	

C7.	a	**Inflammatory and Autoimmune Disorders of the Brain and Spine.** Multiple Sclerosis Transverse Myelitis Peripheral Neuropathies	Aetio-pathogenesis. Grading stage of disease. Assessment based on appropriate FOR. Prognostic determinants. Strategies to optimize motor, sensory, balance, visual, cognito – perceptual components of function. Clinical reasoning for selection of therapeutic intervention models- Preventive, Curative Rehabilitative and Adaptive /compensatory.	04		06
		Practicum/Practical/ Labs: Demonstration, Interactive sessions following clinical and/or simulated audio-visual presentations.	Clinical reasoning for therapeutic intervention Decision making with respect to continuation, termination, modification of goals of therapy, discharge planning. Specific and special therapeutic considerations in context to clinical diagnosis.		02	
C8.	a	**Diseases of Motor Neurone, Neuromuscular Junction and Muscles**. Motor Neuron Disease. Myasthenia Gravis. Myopathy and muscular dystrophies.	Aetio-pathogenesis Clinical presentation. Grading stage of disease. Assessment based on appropriate FOR. Prognostic determinants. Strategies to optimize motor, sensory, balance, visual, cognito – perceptual components of function. Clinical reasoning for selection of therapeutic intervention models- Preventive, Curative Rehabilitative and Adaptive /compensatory.	04		07
		Practicum/Practical/ Labs: Demonstration, Interactive sessions following clinical and/or simulated audio-visual presentations.	Clinical reasoning for therapeutic intervention Decision making with respect to continuation, termination, modification of goals of therapy, discharge planning. Specific and special therapeutic considerations in context to clinical		03	

			diagnosis.			
C9.	a	**Seizure Disorders.**	Aetio-pathogenesis, classification and manifestation. Clinical presentation. Assessment based on appropriate FOR. Prognostic determinants based on conservative, operative management. Strategies to optimize motor, sensory, visual, cognitive, endurance, components of function. Clinical reasoning for selection of therapeutic intervention models- Rehabilitative and Adaptive /compensatory.	04		06
		Practicum/Practical/ Labs: Demonstration, interactive sessions following clinical and/or simulated audio-visual presentations	Clinical reasoning for therapeutic intervention Decision making with respect to continuation, termination, modification of goals of therapy, discharge planning. Specific and special therapeutic considerations in context to clinical diagnosis		02	
C10.	a	**Cerebellar Dysfunctions**	Aetio-pathogenesis, Aetio-pathogenesis Clinical presentation. Grading stage of disease. Assessment based on appropriate FOR. Prognostic determinants. Strategies to optimize motor, balance, visual, components of function. Clinical reasoning for selection of therapeutic intervention models- Preventive, Curative Rehabilitative and Adaptive /compensatory	03		05
		Practicum/Practical/ Labs: Demonstration, Interactive sessions following clinical and/or simulated audio-visual presentations	Clinical reasoning for therapeutic intervention Decision making with respect to continuation, termination, modification of goals of therapy, discharge planning. Specific and special therapeutic considerations in context to clinical diagnosis.		02	
C11.	a	**Vestibular Dysfunctions**	Aetio-pathogenesis and classification	03		05

			Clinical presentation. Assessment based on appropriate FOR. Prognostic determinants. Strategies to optimize motor, sensory, balance, visual, components of function. Clinical reasoning for selection of therapeutic intervention models- Preventive, Curative Rehabilitative and Adaptive /compensatory.			
		Practicum/Practical/ Labs: Demonstration, Interactive sessions following clinical and/or simulated audio-visual presentations	Clinical reasoning for therapeutic intervention Decision making with respect to continuation, termination, modification of goals of therapy, discharge planning. Specific and special therapeutic considerations in context to clinical diagnosis		02	
C12.	a	**Cranial Nerve Dysfunctions**	Assessment of cranial nerve functions and dysfunctions. Aetio-pathogenesis Clinical presentation. Assessment based on appropriate FOR. Prognostic determinants. Strategies to optimize motor, sensory, balance, visual, perceptual components of function. Clinical reasoning for selection of therapeutic intervention models- Preventive, Curative Rehabilitative and Adaptive /compensatory.	03		05
		Practicum/Practical/ Labs: Demonstration, Interactive sessions following clinical and/or simulated audio-visual presentations	Clinical reasoning for therapeutic intervention Decision making with respect to continuation, termination, modification of goals of therapy, discharge planning. Specific and special therapeutic considerations in context to clinical diagnosis		02	
C13.	a	**Cognito-motor, Perceptual Skills and Dysfunctions**	Evaluation of Cognito-motor & Perceptual skills and dysfunctions. Occupational Therapy Training and models of cognitive rehabilitation.	04		06

		Optimizing vision, visual perception and praxis abilities	Peripheral and central visual defects leading to perceptual deficits. Identify and describe specific treatment approaches for- Low vision and occulomotor dysfunction, unilateral neglect, apraxia [Limb, Constructional and Dressing apraxia], compensatory and accommodative techniques. Aetio-pathogenesis Assessment based on appropriate FOR. Prognostic determinants. Strategies to optimize, Visuo-motor, visual, balance cognitive – perceptual components of function. Clinical reasoning for selection of therapeutic intervention models- Preventive, Curative Rehabilitative and Adaptive /compensatory.			
		Practicum/Practical/ Labs: Demonstration, Interactive sessions following clinical and/or simulated audio-visual presentations	Clinical reasoning for therapeutic intervention Decision making with respect to continuation, termination, modification of goals of therapy, discharge planning. Specific and special therapeutic considerations in context to clinical diagnosis		02	
C14.	a	**Dysphagia**	Normal physiology of swallowing. Causative factors in Dysphagia. Assessing cognitive abilities to initiate therapy. Guidelines for assessment & treatment of patients with Dysphagia. Feeding –positioning, diet modification. Specific and special therapeutic considerations in context to clinical diagnosis.	02		04
		Practicum/Practical/ Labs: Demonstration, Interactive sessions following clinical and/or simulated audio-visual presentations	Clinical reasoning for therapeutic intervention Decision making with respect to continuation, termination, modification of goals of therapy, discharge planning. Specific and special therapeutic		02	

			considerations in context to clinical diagnosis.			
C15		**DEVELOPMENTAL DISABILITIES:**		20		36
	a	Conditions of neonates and infants	Screening, Assessment & Early interventions in neonates and infants. Interventions in NICU, Syn-active Theory of Development, Oral Motor Stimulation, Environmental Modifications, Kangaroo Mother Care, Therapeutic Positioning & Splinting.	05	04	09
	b	Cerebral Palsy	Classification, etiology and Occupational Therapy approaches including Neuro-Developmental Therapy, Preschool training, Occupational Therapy in the school system and Home Care Program.	05	05	10
	c	Common Genetic Disorders: Down's syndrome	Aetio-pathogenesis. Clinical presentation. Assessment based on appropriate FOR. Prognostic determinants. Strategies to optimize motor, sensory, balance, visual, cognito – perceptual components of function. Clinical reasoning for selection of therapeutic intervention models- Preventive, Curative Rehabilitative and Adaptive /compensatory. School based approach.	06	03	09
	d	Neural Tube Defects – Meningomyelocele Spinal Dysraphism Diastomatomyelia Hydrocephalus Arnold Chiari Malformation		04	04	08
		Practicum/Practical/ Labs: Demonstration Early Intervention: An Ecological approach-.	Interactive sessions following clinical and/or simulated audio-visual presentations. Seminar format with class discussions: Methods and practices in the screening, assessment, and treatment of children (birth to three years) with (or at risk for) developmental deviations. Prematurity, failure to thrive. Concepts and issues related to the planning and delivery of early intervention services, the impact of early intervention services on young children (birth to three years), families, and their environment.		16	

		School-Based Practice: Assessment to Intervention.	Seminar format with class discussions.: The Individualized Educational Plan (IEP) process, models of service provision, the environmental context, inclusion, collaborative team building, the family as team member. The practical application of educationally relevant occupational therapy service provision in the context of the school: screening, assessment, planning, and implementation of interventions, documentation. Assessment for handwriting, hyperactivity			
		Total hours		75	60	135

BOOKS RECOMMENDED:

1. Brain & Bannister's Clinical Neurology by Sir Roger Bannister. Published by Oxford University Press
2. Willard and Spackman's Occupational Therapy by Elizabeth BlesedellCrepeau, Ellen S. Cohn, Barbara A. Boyt Schell. Published by Lippincott Williams & Wilkins
3. Occupational Therapy for Physical Dysfunction by Catherine A. Trombly, Mary Vining Radomski. Published by Lippincott Williams & Wilkins
4. Occupational Therapy - Practice Skills for Physical Dysfunction by Lorraine Williams Pedretti. Published by Mosby
5. Occupational Therapy and Physical Dysfunction: Principles, Skills and Practice by Annie Turner, Marg Foster, Sybil E. Johnson. Published by Churchill Livingstone
6. Neurological Rehabilitation by Darcy A. Umphred. Published by Mosby
7. Krusen's Handbook of Physical Medicine& Rehabilitation by Frederick J. Kottke, Justus F. Lehmann. Published by W. B. Saunders
8. Rehabilitation Medicine, Principles & Practice by Joel A. DeLisa, Bruce M. Gans. Published by Lippincott Williams & Wilkins
9. Physical Rehabilitation by Susan B. O'Sullivan, Thomas J. Schmitz. Published by F. A. Davis Company. Indian Reprint by Jaypee Brothers
10. The Adult Stroke Patient: A manual for evaluation and treatment of perceptual and cognitive dysfunction by Barbara Zoltan, Ellen Siev, Brenda Freishat. Published by SLACK
11. Occupational Therapy for Children by Jane Case-Smith. Published by Elsevier – Mosby

SCHEME OF THEORY EXAMINATION:

Total marks 200: Theory Examination: 100 & Clinical/Practical Examination: 100
Theory: 100 Marks (University Exam: 80 Marks, Internal Assessment: 20 Marks)
Clinical/Practical: 100 Marks (University Exam: 80 Marks, Term work/Field work: 20 Marks)
A) Distribution of maximum marks for the subject having 100 marks shall be as follows:
University exam - 80 marks, Internal Assessment - 20 marks
Duration of papers: 3 Hours
Scheme of exam to be conducted out of 80 marks:

Section	Type of Question	Marks Distribution
A SAQ 50 Marks	Q 1 - Short Answer Questions any FIVE out of SIX Q 2 - Short Answer Questions any FIVE out of SIX	(5x3) = 15 (5x7) = 35
B LAQ 30 Marks	Q 3 - Long Answer Questions any ONE out of TWO Q 4 - Long Answer Questions any ONE out of TWO	(1x15) = 15 (1x15) = 15
	TOTAL	80 Marks

SCHEME OF CLINICAL/PRACTICAL EXAMINATION: Total 100 marks

Term work: 20 Marks (Internal Assessment during clinical field work and ward exams, Attitude: assessment of On-going clinical performance - i.e. initiative, case reports, regularity; case presentations, seminars, etc)
University Examination: 80 Marks
One Long case: 40 Marks
Short case/simulated case: 20 marks
Viva voce/spots: 15 Marks
Communication skills: 05 marks

Long case to include detailed evaluation, treatment goal setting & future planning of a single patient
Short case to include evaluation of a specific component of a single patient & goal setting for a specific component or demonstration of clinical skills

BOT-IV/04

Occupational Therapy in Psychiatry

(Didactic 75 hours + Practical 60 hours + Supervised Clinical Fieldwork 216 Hours = Total 351 hours)

Course Description:

Mental health: Explores the psychosocial aspects of disability as they affect function of the individual, the family and the community. It educates student on the diagnosis, pharmacology of psychiatric illness, the events and effects of each on resolution and or aggravation of untoward effects as observed in therapy intervention. It emphasizes the importance of group dynamics in theory and practice, structure and functions of groups in treatment, analysis of group treatment and group activities and therapeutic use of self & teaches about major tools of assessment and practice frame work in contemporary frame work of mental health sciences.

Utilizes lifespan approaches in evaluating physiological, psychological, psychosocial and societal effects of substance abuse on individuals and families. Reviews major category of drugs, their effects and withdrawal symptoms, discusses various theories and frames of references used in Occupational therapy intervention.

Sr.No	TOPIC	Didactic Hours	Practical Hours	Total Hours
1	General and Specific Objectives of Psychiatric Occupational Therapy.	05	05	10
2	Theoretic Basis of Occupational Therapy in Psychiatry.	08	08	16
3	Methods of Evaluation in Psychiatric Occupational Therapy.	06	06	12
4	Activity Analysis & Work Fitness Evaluation	05	05	10
5	Types of Therapeutic Media used in Psychiatric Occupational Therapy.	06	09	15
6	Occupational Therapy Intervention Based on Current Practices in Psychiatric Conditions	36	18	54
7	Role of an Occupational Therapist as a Team Member in Various Set ups.	09	09	18
	TOTAL	75	60	135

Syl Rev I

Sr. No.		Topic	Content	Didactic Hours	Practical Hours	Total Hours
D1.	a	**General and Specific Objectives of Psychiatric Occupational Therapy.**	General and Specific Objectives and Prescription of Psychiatric Occupational Therapy.	05		08
		Practicum/Practical/ Labs.	Seminar presentations		03	
D2	a	**Theoretic Basis of Occupational Therapy in Psychiatry.**	Frames of References & Models of approaches used in Psychiatric Occupational Therapy: Model of Human Occupation, Mosey's Frames of Reference, Behavioral, Developmental, Sensory Integrative, Cognitive Disability & Psychoanalytical.	08		13
		Practicum/ Practical/Labs.	Seminar Presentations FOR.		05	
D3.	a	**Methods of Evaluation in Psychiatric Occupational Therapy.**	Mini Mental Status Examination (MMSE). Observations. Interviews and Checklists. Standardized and Non-Standardized Evaluation Techniques – Reisburg Allen's Cognitive Assessment Scale.	06		11
		Practicum/Practical/ Labs:	Administration of MMSE, Allen's Cognitive Scale on patients.		05	
D4.	a	**Activity Analysis & Work Fitness Evaluation**	Activity analysis, Meaning of; and therapeutic utilization of activities in Psychiatric Occupational Therapy. Work Fitness Evaluation including IDEA as per Guidelines of Assessment by Ministry of Social Justice & Empowerment.	05		09
		Practicum/Practical/ Labs:	Analysis of activity in patients graded as level IV of Allen's cognitive scale Assessment for work fitness.		04	
D5.	**Types of Therapeutic Media used in Psychiatric Occupational Therapy.**			06	08	14
	a	Behavioral therapy.				
		Practicum/Practical/Labs:	Practice sessions on administration and interpretation of Behavioral techniques.			

	b	Projective techniques.				
		Practicum/Practical/Labs :	Hands-on for administration and interpretation of Projective techniques.			
	c	Industrial activities.	Fitness for work in industries using simulated Arts and creative tasks.			
		Practicum/Practical/Labs :	Fitness for Work-Practical assessment of clients using appropriate tools.			
	d	Arts and creative activities.				
	e	Social skills training.	Social Skills training and fitness for work in industries using simulated Arts and creative tasks.			
		Practicum/Practical/Labs :	Psycho-educational groups.			
	f	Group therapy.	Theories of small group functioning, elements of group process, effective group formation, development, and closure. Understanding personal dynamics with organizational culture in relation to group development in small and large group system Group types.			
		Practicum/Practical/Labs :	Practice with steps in-group formation. Conducting different types of groups, group closure.			
	g	Sensory Integrative Therapy and recent advances.				
		Practicum/Practical/Labs :	Sensory Integration – demonstrations and hands on for Sensory processing issues in Psychiatric conditions.			
D6	**Occupational Therapy Intervention Based on Current Practices in Psychiatric Conditions**					
	Long term and Short term Occupational Therapy Assessments and Interventions based on current practices in:					
				36	27	63
	a	Schizophrenic disorders.		04	02	06
	b	Mood disorder.		02	01	03
	c	Dementia		02	01	03

	d	Generalized anxiety disorders and phobias.		02	01	03
	e	Conversion and dissociative reaction.		02	01	03
	f	Obsessive Compulsive disorders.		02	01	03
	g	Substance related disorders.		04	02	06
	h	Sensory Processing Disorders like Autism Spectrum Disorder, Attention Deficit Disorder, Attention Deficit Hyperactivity Disorder, Developmental Co-ordination disorder.		05	03	08
	i	Psychological factors affecting medical conditions (Psychosomatic conditions) and personality disorders.		02	01	03
	j	Eating disorders.		02	01	03
	k	Mental retardation.		03	01	04
	l	Learning disorders.		04	01	05
	m	Introduction & Concept of Forensic Psychiatry.		02	01	03
		Practicum/Practical/ Labs: Demonstration practice on clients under supervision, interactive sessions following clinical and/or simulated audio-visual presentations.	Assessment methods in typical and atypical presentations, problem solving based on clinical reasoning with respect to above (A-L). Seminar presentation on Role of OT in Forensic Psychiatry.		10	10
D7	a	**Role of an Occupational Therapist as a Team Member in Various Set ups.**	i. Role of an occupational therapist as a team member in Community based rehabilitation. Half way homes. Day care centers. Sheltered workshops. Long- term care. Psychiatric unit of acute care hospitals. Child guidance clinic. ii. Care Givers Education. iii. Various Support Groups.	09		17
		Practicum/Practical/ Labs:	Seminar presentation in the current Indian scenario with respect to Half way homes, day		08	

			care shelters, long-term care, CGC and De-addiction centers.			
		Total hours		75	60	135

BOOKS RECOMMENDED:

1. Willard and Spackman's Occupational Therapy by Elizabeth BlesedellCrepeau, Ellen S. Cohn, Barbara A. Boyt Schell. Published by Lippincott Williams & Wilkins.
2. Occupational Therapy in Short Term Psychiatry by Moya Wilson. Published by Churchill Livingstone.
3. Occupational Therapy in Long Term Psychiatry by Moya Wilson. Published by Churchill Livingstone.
4. Occupational Therapy a Communication Process by G.S. Fiddler and J.W. Fiddler.
5. Quick reference to Occupational Therapy by Kathlyn L Reed. Published by Aspen Publication.
6. Occupational therapy and Mental Health, Principles, Skills and Practice by Jennifer Creek. Published by Churchill Livingstone.
7. Mental Health concepts and techniques for occupational therapy assistant by M. B. Early. Published by Lippincott Raven.
8. Occupational Therapy in Mental Health: Principles and methods, Derek w Scott and Naomi Katz, Published by Taylor & Francis.
9. Occupational Therapy in Rehabilitation by E. M. MacDonald.
10. Quick Reference to the Diagnostic Criteria from DSM-IV by American Psychiatric Association. Published by Jaypee Brothers.
11. Occupational Therapy for Children by Jane Case-Smith. Published by Elsevier – Mosby.

SCHEME OF THEORY EXAMINATION:

Distribution of maximum marks for the subject having 100 marks shall be as follows:
University exam - 80 marks, Internal Assessment - 20 marks
Duration of papers: 3 Hours
Total marks 200: Theory Examination: 100 & Clinical/Practical Examination: 100
Theory: 100 Marks (University Exam: 80 Marks, Internal Assessment: 20 Marks)
Clinical/Practical: 100 Marks (University Exam: 80 Marks, Term work/Field work: 20 Marks)

Scheme of exam to be conducted out of 80 marks:

Section	Type of Question	Marks Distribution
A SAQ 50 Marks	Q 1 - Short Answer Questions any FIVE out of SIX Q 2 - Short Answer Questions any FIVE out of SIX	(5x3) = 15 (5x7) = 35
B LAQ 30 Marks	Q 3 - Long Answer Questions any ONE out of TWO Q 4 - Long Answer Questions any ONE out of TWO	(1x15) = 15 (1x15) = 15
	TOTAL	80 Marks

SCHEME OF CLINICAL/PRACTICAL EXAMINATION: Total 100 marks

Term work: 20 Marks (Internal Assessment during clinical field work and ward exams, Attitude: assessment of On-going clinical performance - i.e. initiative, case reports, regularity; case presentations, seminars, etc)
University Examination: 80 Marks
One Long case: 40 Marks
Short case/simulated case : 20 marks
Viva voce/ Spots: 15 Marks
Communication Skills: 05 marks
Long case to include detailed evaluation, treatment goal setting & future planning of a single patient
Short case to include evaluation of a specific component of a single patient & goal setting for a specific component or demonstration of clinical skills.

Syll Rev I

BOT-IV/05

Community Based Occupational Therapy and Rehabilitation

(Didactic 100 hours + Practical 35 hours + Supervised Clinical fieldwork 54 hours = Total 189 Hours)

Course Description:

Builds ability to screen and evaluate adult function in community. Prepares student to analyze, apply occupationally based activities appropriate to age and client needs, assess client for participation or restriction in community re-entry, evaluate for need of assistive technologic devices, assess for application of orthotics and prosthetics.
Offers theoretical concepts to assess and intervene individual and population in institutions and de addiction centers, homes and community; participation in psychosocial rehabilitation driver assessment and simulated training.
Assist disability rating in various disability states using ICF 2000, assess impact on family system.
Assessment for access in community and home environment. Accommodation of the disabled in community.

Sr. No.	TOPIC	Didactic Hours	Practical Hours	Total Hours
1	Community Based Rehabilitation (CBR)	08	02	10
2	Concepts of Health & Disease	03	03	06
3	Social Factors and Health & Sociology	35	05	40
4	Occupational Health	05	05	10
5	Child Survival and Safe Motherhood Program	04	02	06
6	Nutrition & Health.	04	02	06
7	Anthropology, Ethnography & Skill Transfer	06	02	08
8	Disability & Health	06	02	08
9	Organization & Administration	06	02	08
10	Assistive Devices & Adaptive Equipment	16	06	22
11	Wheelchair Selection Process	03	02	05
12	Low Cost Aids & appliances	04	02	06
	TOTAL	100	35	135

Sr.No.		Topic	Content	Didactic Hours	Practical Hours	Total Hours
E1		**Community Based Rehabilitation (CBR)**		08	02	10
E1.	a	Community Based Rehabilitation (CBR)	Definition, models, structure, process and outcome of CBR. Role of Occupational Therapy and the contributions of other health professionals in CBR. Differentiate between CBR and IBR.	02	-	02
	b	Community Integration:	Fall prevention to enhance mobility and safety. Driving: Prerequisites for driving- visual perceptual assessment and training.	04		06
		Practicum/Practical/ Labs: Demonstration and interactive sessions following clinical and/or simulated audio-visual presentations.	Need based Visual-perceptual motor training to patients who need to return to driving. Vestibular –Proprioceptive and component visual skills training to enhance balance for ADLS, functional mobility and Fall prevention in Elderly.		02	
	c	Occupational Therapy for disaster management.	Anticipated calamities or disasters in India Preventive role Management in acute & post disaster events as a team member.	02	-	02
E2.	a	**Concepts of Health & Disease.**	Definition & dimensions of health.	03		06
		Practicum/Practical/ Labs: Demonstration and interactive sessions following clinical and/or simulated audio-visual presentations.	Community wellness and health programs, maintenance programs. Community education through audio-visuals and using therapeutic groups.		03	
E3.	a	**Social Factors and Health & Sociology**	Concepts in epidemiology, sociology & cultural factors in health & disease and social problems of disabled workers. Introduction to Sociology. Social research methods. Social stratification and social class. Sex gender and feminism. Multicultural society. The family.	35		40

			Health and illness. Organizations. The sociology of the health professions. Work & Leisure. Normalization and critical disability. Social problems of the Disabled - Consequences of the following social problems in relation to sickness disability, remedies to prevent these problems i] Population Explosion ii] Poverty & Unemployment iii] Beggary d] Juvenile Delinquency iv] Prostitution v] Alcoholism vi] Problems of Women in Employment. Social Security & Social Legislation in relation to the Disabled. Role of a Social Worker			
		Practicum/Practical: Demonstration and interactive sessions following clinical and/or simulated audio-visual presentations.	Psycho-educational groups for women, elderly, children.		05	
E4	a	**Occupational Health**	Definition of occupational health. Role of Occupational Therapy in occupational disorders like occupational lung disease. Medical and engineering measures in prevention of occupational diseases.	05		10
		Practicum/Practical/ Labs: Demonstration and interactive sessions following clinical and/or simulated audio-visual presentations.	Assessment of environment, and education on preventive measures.		05	
E5.	a	**Child Survival and Safe Motherhood Program (CSSM Program)**	Role of CSSM as a national program. Role of Occupational Therapy in orthopedic & neurological conditions in new born such as Congenital Dysplasia of Hip (CDH), Congenital Talipes EquinoVarus (CTEV), Cerebral Palsy (CP), Spina Bifida and Arthrogryposis Multiplex Congenita (AMC) in community setting.	04		06
		Practical/ Demonstration and interactive sessions following clinical and/or simulated	Orthotic evaluation in above conditions Mother empowerment programs in community for safety handling, self maintenance etc.		02	

		audio-visual presentations.				
E6.	a	**Nutrition & Health.**	Constituents of food, their functions &national nutritional programs.	04		06
		Practical: Demonstration and interactive sessions following clinical and/or simulated audio-visual presentations.	Groups-nutritional value to enhance physical and mental fitness in environment.		02	
E7	a	**Anthropology, Ethnography & Skill Transfer.**	Definition and Description of Anthropology, Ethnography and Skill transfer. Knowledge, attitude, community education and appropriate technology	06		08
		Practical/Labs: Demonstration and interactive sessions following clinical and/or simulated audio-visual presentations.	Practice types of skills training in different diagnoses.		02	
E8.	a	**Disability & Health**	International Classification of Functioning, Disability & Health: WHO's ICF 2001 & older editions of ICIDH. Magnitude of disability problems, its causes & future trends. Persons with Disability Act (1995), National Trust Act 1999, RCI Act 1992 by Government of India. Basic concepts of disability evaluation and certification in India and its Social Legislation. Prevention & detection of disability & Role of Occupational Therapy in disability prevention.	06		08
		Practicum/Practical/ Labs: Demonstration and practice sessions.	Practice administration of assessment procedures using ICF and ICIDH models in disability evaluations.		02	
E9	a	**Organization & Administration**	Principles of organization & administration. Organizational chart. Starting a new Rehabilitation Centre – its procedure, survey, and interview& planning.	06		08
		Practicum/ Labs: Demonstrations.	Practical in procedure and policies of organization.		02	
E10.		**ASSISTIVE DEVICES & ADAPTIVE EQUIPMENT.**		16	06	22

	a	Activities of Daily Living:	Assessment for the need of ADL Assistive Devices. Assistive Devices for Self Care, Household management, Home maintenance, Community activities.	04	02	06
	b	Mobility:	Assessment for the need of Mobility aids. Selection of Assistive devices for ambulation Fitting of Assistive devices for ambulation.	04	02	06
	c	Recreation:	Assessment for the need of assistive devices for recreation. Assistive devices such as grip modification, adaptive cardholder.	02	-	02
	d	Accessibility:	Role of occupational therapy in optimizing home, work and community accessibility: Specific interventions for access to the home, work and community environment. Factors affecting effectiveness of intervention strategies.	06		08
		Practical/ Labs: Demonstration, simulated audio-visual presentations.	Practical and labs in access to home, work and in community.		02	
E11.	a	**Wheelchair Selection Process.**	Wheelchair selection process: Assessment for positioning, Adaptations and types of Wheelchairs. Parts and Accessories of Wheelchairs. Transfer Techniques. Training and safety assessment for wheelchair maneuvering.	03		05
		Practicum/Practical/ Labs: Demonstration, Hands on practice on models or clients under supervision, interactive sessions following clinical and/or simulated audio-visual presentations.	Practice in evaluation and prescription for wheel chairs, Wheel chair devices for positioning and wheel chair maneuvering.		02	
E12	a	**Low Cost Aids & Appliances**	Innovative low cost aids & appliances with respect to therapeutic equipment & adaptive devices, splints & mobility aids used in community based rehabilitation set -ups.	04		06
		Practicum/Practical Labs: Demonstration, Hands on practice on clients.	Assessment and fabrication of low cost devices in community.		02	
		Total hours		100	35	135

BOOKS RECOMMENDED:

1. Park's text book of Preventive and Social medicine by K. Park. Published by Banarsidas Bhanot.
2. Disabled village children, A guide for Community Health, Workers, Rehabilitation Workers & Families by David Werner. Published by The Hesperian Foundation.
3. Willard and Spackman's Occupational Therapy by Elizabeth BlesedellCrepeau, Ellen S. Cohn, Barbara A. Boyt Schell. Published by Lippincott Williams & Wilkins.
4. Occupational Therapy for Physical Dysfunction by Catherine A. Trombly, Mary Vining Radomski. Published by Lippincott Williams & Wilkins.
5. Occupational Therapy - Practice Skills for Physical Dysfunction by Lorraine Williams Pedretti. Published by Mosby.
6. Occupational Therapy and Physical Dysfunction: Principles, Skills and Practice by Annie Turner, Marg Foster, Sybil E. Johnson. Published by Churchill Livingstone.
7. Physical Rehabilitation by Susan B. O'Sullivan, Thomas J. Schmitz. Published by F. A. Davis Company.Indian Reprint by Jaypee Brothers.
8. Traction and Orthopaedic Appliances by John D. M. Stewart, Jeffrey P. Hallett. Published by Churchill Livingstone.
9. Atlas of Orthoses and Assistive Devices by Bertram Goldberg, John D. Hsu. Published by F. A. Davis Company.
10. Hand Splinting: Principles & Methods by Elaine Ewing Fess, Karan S. Gettle, James W. Strickland. Published by Mosby.
9. WHO's ICF Manual 2001.
11. Guidelines for evaluation of various disabilities and procedure for certification - By Ministry. of Social Justice and Empowerment Notification 2001
12. Objective Evaluation of Impairment and Ability in Locomotor Handicapped – Dr. SabapathyvinayagamRamar – 1993.
13. Community Based Rehabilitation by Malcolm Peat. Published by W. B. Saunders
14. Sociology and Occupational Therapy: An integrated approach by Derek Jones, Sheena E.E. Blair, Terry Hartery. Published by Churchill Livingstone
15. Introduction to Sociology by VidhyaBhushan and Sachdeva. Published by KitabMahal, Allahabad
16. Indian social problems: social disorganization and reconstruction by Gurmukh Ram Madan, Published by Allied Publishers. Original by University of Michigan

SCHEME OF THEORY EXAMINATION:

Distribution of maximum marks for the subject having 100 marks shall be as follows:
University exam - 80 marks, Internal Assessment - 20 marks
Duration of papers: 3 Hours
Theory: 100 Marks (University Exams: 80 Marks, Internal Assessment: 20 Marks)
Supervised Clinical Fieldwork Hours: 54 Hours (In an inpatient and an outpatient settings)

Scheme of exam to be conducted out of 80 marks:

Section	Type of Question	Marks Distribution
A SAQ 50 Marks	Q 1 - Short Answer Questions any FIVE out of SIX Q 2 - Short Answer Questions any FIVE out of SIX	(5x3) = 15 (5x7) = 35
B LAQ 30 Marks	Q 3 - Long Answer Questions any ONE out of TWO Q 4 - Long Answer Questions any ONE out of TWO	(1x15) = 15 (1x15) = 15
	TOTAL	80 Marks

Syll Re

BOT-IV/06-Biostatistics and Research Methodology

Total hours: 55(Didactic: 36 hours & Practical Class (including journal writing): 19 hours).

Sr.No.	Topic	Content	Didactic Hours	Practical Hours	Total Hours
F1	**BIOSTATISTICS & RESEARCH METHODOLOGY**				
1.	Types of Research	Types of Research e.g. Basic Science Vs Clinical, Descriptive, Analytical Vs Experimental.	02		02
2.	Algorithm of Study Designs and Level of Evidence	Study designs such as Observational Vs Experimental. Five levels of evidence.	02		02
3.	Review of Literature	Various sources of references Acknowledgement of sources	02		04
4.	Ethical Guidelines	Ethical Guidelines for Biomedical Research in Human Participants. Historical background in evolution of ethical guidelines.	02		02
5.	Protocol Writing.	Protocol Writing for Submission to Institutional Review Board/Institutional Ethics Committee (IRB/IEC).	02		02
6.	Methods of Writing References.	Methods of Writing References e.g. Vancouver method, Harvard method.	01		02
7.	Introduction to Statistics &Common Statistical Terminologies.	Definitions, Scope & Limitations Terminologies e.g. Population, Sample, Constant, Variable etc.	02		02
8.	Sources & Types of Data, Data Collection & Presentation.	Primary, Secondary Quantitative & Qualitative Measurement scale of data Surveys, Records, etc. Tabulation & Graphs.	03		05
9.	Measures of Central tendency & Location.	Mathematical Averages Positional Averages.	01		03
10.	Variability & its Measures	Range, Quartile deviation, Mean deviation, Standard deviation, Coefficient of variation SEM, SEP.	02		04
11.	Probability.	Definitions Addition theorem of probability Multiplication theorem of probability.	02		03
12.	Normal Distribution & Normal Curve.	Construction Properties Use & significance Skewness in distribution.	03		03

13.	Sampling, Sampling Variability & its Significance.	Methods of sampling Errors in sampling	01		02
14.	Sample Size Calculation.	Quantitative: finite & infinite population Qualitative: finite & infinite population.	01		02
15.	Tests of Significance – I.	Significance of Difference in Means: Z test (for large samples) t test: paired & unpaired (for small samples).	02		03
16.	Tests of Significance – II.	The Chi - Square Test. Goodness of fit & Test of association.	01		02
17.	Correlation & Regression.	Definition & types of correlation Calculation of Pearson's correlation coefficient (r) Simple linear regression.	03		04
18.	Demography & Vital Statistics.	Definition Indicators of health & their uses.	02		04
19.	Use of Computers in Biostatistics.	Windows Excel Data Analysis in bio-statistical analysis. Names of various statistical tools and software.	02		04
	Practical/ Labs: Demonstration and Practice. Reflective writing.	Computer based practice for basic statistical analysis- word processing, spread sheets, tabulation, and Microsoft office access. Identification of Tests for Parametric and Non- Parametric data and statistical formulae as applied to different categories of data.		19	
	Total hours		36	19	55

BOOKS RECOMMENDED:

1. Methods in Biostatistics: For Medical Students & Research Workers by B. K. Mahajan. Published by Jaypee Brothers
2. A Practical Approach to PG dissertation by R. Raveendran& B. Gitanjali. Jaypee Brothers
3. Fundamentals of Biostatistics by Veer BalaRastogi. Published by Ane Books Pvt. Ltd
4. Research Methods for Clinical Therapist: Applied project design and analysis by Carolyn Hicks. Published by Churchill Livingstone

SCHEME OF THEORY EXAMINATION:

Distribution of maximum marks for each subject/section having 50 marks shall be as follows: University exam - 40marks, Internal Assessment - 10 marks

Scheme of exam to be conducted out of 40 marks:

Section	Type of Question	Marks Distribution
A	Q 1 Short Answer question Any FIVE out of SIX Q 2 Short Answer question Any FIVE out of SIX	(5x3) = 15 (5x5) = 25
	TOTAL	40 Marks

Syll Rev

Fourth BOTh

Transcript hours [1462]

Headings and Definitions:

Didactic:

Didactic teaching involves classroom teaching on theory topics to build the foundations and concepts in clinical practice.

Practicum/Practical/ Lab work/Reflective writing:

Practical: Are hands on sessions practiced on peers, models or patients, bed side clinics, outpatient clinics, clinical case discussions in the units or outpatient departments; demonstration of evaluation, investigative, treatment procedures are accounted in the practical hours.

Practicum: Topics in the form of seminars prepared by students and presented in the class room to elicit interactive discussions, clinical reasoning.

Labs: Are actual practice sessions on patients, peers or models to allow interpretation of results, assessment of disability in all clinical various clinical diagnoses; group formation, conducting therapeutic groups, May include lab procedures.

Reflective writing: In the clinical field work includes writing of case records, evaluations, goals, intervention plans, documenting therapeutic procedures in intervention, and follow up records.

Clinical Field work:

The fourth year includes:

Practice, observation, applications and discussions in actual clinical settings in the form of:
Evaluation, assessment using standardized tools, goal planning execution of therapy, goal modification, assessment for discharge planning, patient and care giver education on home exercises, maintenance and safety issues.

During each clinical assignment, the student shall focus on arriving at a functional diagnosis, practice clinical skills on patients under the supervision and/or partial supervision of clinical &/or teaching faculty

Shall maintain folders in which prescribed number (Minimum 7) of case records and written assignments shall be documented. The student shall obtain signatures and remarks/grades from respective section in- charge at the end of each clinical posting.

Submission of duly signed Clinical Training Record (C.T.R) will be a prerequisite for examination. This record will be maintained as a proof for clinical field work in the Fourth year and shall be produced as a valid document in any event of submission for the future.

Assessment and marking of students in the form of verbal and written (reflective) case presentations by faculty in each area of clinical assignment to ensure clinical competency and ability for professional autonomy in delivery of Occupational Therapy services will be mandatory at the end of each assignment.

Actual clinical work in clinical settings, all hands on procedures related to patient care, involves patient evaluation, assessment, goal planning, writing, and execution of goals, intervention procedures, patient and family education. Reflective writing pertaining to individual cases may be considered as a part of fieldwork.

Bedside and outpatient treatments ward rounds and discussions are considered a part of field work; discharge planning, assessment for community reintegration and home assessments are also included in clinical field work training.

Filed work visits:

Objectives of visits:
Work assessment.
Wheelchair fabrication, prescription and transfers
Special School with residential facility.
Day School for Spastics.
Residential facility for Mental Health.

Mandatory requirements:

Assessment and marking of each student is mandatory in the form of verbal and written (reflective) case presentations by faculty in-charge, in each area of clinical assignment to ensure clinical competency in the assigned area.

During each clinical assignment, the student shall arrive at the functional diagnosis, plan and execute goals, practice intervention techniques on patients under the supervision of faculty or clinical supervisors shall maintain folders in which prescribed number of case records, written assignments, shall be preserved. At the end of each clinical posting student shall obtain signature and remarks/grades from the respective section in- charge on the clinical training record. Submission of duly signed. Clinical Training (C.T.R) record is a prerequisite to appear for the final examination. The record will remain as a permanent document with the student for future reference and proof of clinical training.

Placements for Clinical field work practice:

Supervised Clinical Field Work (Total: 732 Hours)			
S. No.	Assignments/Clinical Fieldwork Postings	Total Hours	Total Duration in weeks
1.	Orthopedic Inpatients & Outpatients.	216	5.5
2.	Neurology Inpatients & Outpatients.	108	2.7
3.	Pediatric Inpatients & Outpatients.	108	2.7
4.	Psychiatry Inpatients & Outpatients.	216	5.5
5.	Community Based OT Fieldwork& Special Clinics e.g. Geriatric OPD&PSM OPD.	54	1.3
6.	Field Work Visits & Work Assessment.	30	0.76
	Total	732	18.46

Recommendations for Clinical practice in field work Occupational therapy under supervision and/or partial supervision of a faculty or clinical supervisor.

Credits:

10 hours of classroom teaching are equated as one credit.
15 hours of Practical, practicum, or lab work, reflective writing is equated as one credit.
30 hours of clinical fieldwork offers one credit.

SU REV I

Hours and Credits in the Fourth Year:

Subject code.	Subject	Didactics		Practical /Practicum/labs		Field work		Total	
		Hours	Credits= Hours/10	Hours	Credits= Hours/15	Hours	Credits= Hours/30	Hours	Credits
BOT-IV/01	Advances in Occupational Therapy and Rehabilitation Medicine	75	7.5	60	4	30	1	165	12.5
BOT-IV/02	Occupational Therapy in Orthopaedic condition	75	7.5	60	4	216	7.2	351	18.7
BOT-IV/03	Occupational Therapy in Neurological and Developmental conditions	75	7.5	60	4	216	7.2	351	18.7
BOT-IV/04	Occupational Therapy in Psychiatry	75	7.5	60	4	216	7.2	351	18.7
BOT-IV/05	Community Based Occupational Therapy and Rehabilitation	100	10	35	2.33	54	1.8	189	14.13
BOT-IV/06	Biostatistics and Research Methodology	36	3.6	19	1.26	-	-	55	4.86
		436		294		732	24.4		24.4
	TOTAL							1462	111.99

Signature of Program Director & HOD

Seal of the Department

SyllRev

INTERNSHIP PROGRAM BOTh

[BACHELOR IN OCCUPATIONAL THERAPY PROGRAM]

[REVISED VERSION –I]

Total period: 1032 hours. **COURSE DESCRIPTION**:

Focuses on the development of Occupational Therapy reasoning skills based on theoretical and clinical learning. Emphasizes on the ability to critique observations and make interpretations based on observations.

Experiential learning with hands on practice in:

1. Acute care:

Includes Occupational Therapy intervention in-

Intensive care units [Neonatal intensive care, Cardiac and pulmonary intensive care, Medical intensive care, Surgical intensive care, Burns unit]

Refines skills in use of high tech equipment, identification of complex diagnosis, specific care in therapy, current practices and documentation in Occupational Therapy.

2. Sub acute care:

Includes Occupational Therapy intervention in:

General and specialty surgical and medical units following acute care intervention until discharge to home or as indicated.

Includes placements in -Musculoskeletal and orthopedic conditions, burns units, reconstructive surgery, hand rehabilitation, Neurosurgery and Neuro-medicine units, pediatric and sensory integrative units, cardiopulmonary rehab, hematology and blood related disorders, hospice care, , comprehensive care hemophilia units, hospital psychiatry units and hospital based de-addiction units.

Work experience as described in each area reflected in the table below.

Physical agent Modalities: Presents PAM utilized as adjuncts to OT treatment as indicated in each area of assignment. Provides opportunities to practice applications in variety of diagnoses and review therapeutic applications of heat, cold, ultra sound, TENS, and Functional Electrical Stimulation. Address physiological effects of PAM, their clinical indications and contraindications in clinical settings.

3. Community based rehabilitation:

Includes Occupational Therapy intervention in a variety of conditions

discharged to community or are in process of being discharged.

a. **Mental health and de – addiction:**

Students use major tools of assessment and practice frame work in contemporary frame work of mental health sciences. Experience with assessment of clients with alcoholism, substance abuse, intervention with groups and individuals, to populations in institution and de-addiction centers, day care centers for mental health. It emphasizes the importance of group dynamics in practice, structure and function of groups in treatment, analysis of group treatment and group activities and therapeutic use of self.

b. Elderly care: Through clinical reasoning, students learn to evaluate and facilitate functional performance in older adults in a variety of environments, ranging from community to institutional settings. Learn to model professional roles, intervention strategies, and modes of service delivery, including interdisciplinary approaches to geriatrics Occupational Therapy.

c. Adult care / Peadiatrics care:

(i) In outpatient services at hospital, community rehab, adult and women care, access and environmental barriers, home assessment and discharge, comprehensive care units in hemophilia.

(ii) Community Pediatric care units, kangaroo mother care

d. Assistive technology:

Builds ability to examine for problems in designing and providing assistive devices for individuals with disabilities. Based on the HAAT model facilitates learning in assessment for client participation and /or restriction in community re-entry, evaluation for need of assistive technologic devices, assessment for application of orthotics and prosthetics. Prepares for search strategies of devices, resources and creative problem solving. Students work with materials commonly used to create individualized devices, in cross-disciplinary teams on a design for a specific user or group.

Includes Occupational Therapy intervention in:

All groups including gericare, pediatric rehabilitation, learning disorders, ADHD, autism, industrial rehab, hand rehab, amputations, spinal injuries, stroke etc.

e. Mobility assessment:

Reinforces skills in mobility assessment-

Wheel chair -assessment, prescription, training, positioning, maneuvering. Assessment for manual and powered propelling, environmental modification. Prescription of appropriate crutch and canes in rural community. Assessment for other mobility aids and devices. Includes Occupational Therapy intervention in:

Need based intervention in restricted function, includes all diagnoses, all patients who are on the way to community re-entry or discharged to community, need assistance to return to work.

f. Driver training:

Evaluation of visual, perceptual and cognitive task components, reflex reactions, Cognito-motor and safety assessment for driving, Simulated driver training.

Occupational Therapy intervention includes:

Need based training to clients with driving problems, difficulty with any of the above components.

g. Disability assessments:

Update current practice of disability classification and assessment. Refines attributes towards the ICF in intervention and disability rating Promotes multidisciplinary and interdisciplinary

interactive sessions during assessments, prepares the student for independent decision making in selection of tools for assessment, delivery of appropriate services.

Includes Occupational Therapy intervention in:

- Assisting for disability rating based on functional assessment. .
- Assessing for accommodation.
- Access to home, work and community environments.

Core Objectives of internship:

Based on the Theme of Occupational Therapy student will:

- Demonstrate independence in assessments, evaluations with respect to current intervention practices based on clinical reasoning.
- Communicate and model professionalism towards career responsibility.
- Communicate current development and practices in Occupational therapy.
- Enhance skills in professional discussions and written documentations.
- Develop skills in interdisciplinary interactions, articulating needs and values of practice, verbal and written communication, record writing and record maintenance.
- Develop and expand repertoire of Occupational therapy Assessments and Interventions related to human occupation and performance.
- Build leadership skills and the ability to view the client as a whole through experiential learning.

Work protocols:

Students work in clinical field work assignments for a period of six months.

During this period students are expected to complete a research project to enhance evidence based applications, refine skills in literature reviewing, and apply research methodology skills. The research project will be presented orally to the faculty and students, and will be submitted as a dissertation to the institute, one copy of the same will remain with the student. Both the copies will be duly signed by the guide and program director, both these copies will be official proofs of submitted research project.

Each student is expected to maintain a log book as a proof of the clinical case load in each assignment.

Placements for clinical field work are in different areas as compulsory and/or optional assignments for periods of two weeks in each assignment. At the end of assignment it is mandatory to get the clinical training record signed by the clinical supervisor or the supervising faculty.

Students will use a variety of learning activities to fully explore areas of practices in clinical field work. Emphasis will be laid on practical applications of theoretical concepts in the form of clinical reasoning, and its application to treatment situations to guide clinical decision making from evaluation through discharge.

CLINICAL FIELD WORK V: PLACEMENTS

Allows reviewing and applying pre dominant models of current practices in the following areas of Occupational Therapy practice:

Sr no	Area of placement	Experiential learning	Hours
BOT V/01	**PEDIATRIC AND DEVELOPMENTAL INTERVENTION and SENSORY INTEGRATION.**		**166**
A	Acute care: NICU Early intervention High risk infants	Experiential, hands on, clinical reasoning: Experience with handling high tech equipment. Evaluation, goal setting, intervention, discharge planning, documentation based on clinical reasoning. Decision making with complex conditions and diagnosis. Identification of high risk infants. Intervention for above.	30hrs
B	Sub-Acute care: Early intervention continued- Cerebral palsy Infective conditions of the brain, post operative conditions etc.	All above learning in context to pediatric group referred from acute care, and referred on outpatient basis. Intervention for sensori-motor and Cognito perceptual problems.	41.5
C	Community based care : High risk infants follow up clinics for all above conditions as needed, education to parents, positioning holding, lifting, feeding, oral motor stimulation, techniques.	Mother and child care, Continued Kangaroo care in community, home program for feeding and handling of high risk infants.	25
D	Sensory integration: [ADHD, LD, Autism, pervasive developmental disorders, developmental co-ordination disorders].	Screening, evaluation, assessment, for sensory processing and integrative disorders. Intervention using relevant principles and fidelity guidelines.	44.5
E	School based practice:	Readiness for school – visual - motor and perceptual skills, hand writing, behavioral and social skills training. Assistive device technology.	25
BOT V/02	**MEDICAL CONDITIONS AND CARDIO-PULMONARY REHABILITATION/ CPCR**		**166**
A	Acute care:	Experiential, hands on, clinical reasoning: Experience with handling high tech equipment. Evaluation, assessment, documentation, application of specialized scales and tools, intervention based on clinical reasoning. Early mobilization for conditioning, prevention of contractures, orthotic assessment.	60

B	Sub-acute care:	Use of standardized equipment and protocols for training. Evaluation and administration of conditioning protocols, monitoring parameters, prescription of appropriate exercises and activities based on METS. Assessment for discharge to home. Patient and care giver education.	60
C	Community based practice:	Return to work. Stress management Preventive risk management and modification. Maintenance through home program prescriptions. Elderly-care-gerontology and geriatric intervention.	38
D	CPCR hands on training	Theoretical basis of CPCR, Hands on experience on mannequins.	8
BOT V/03	**GENERAL & SPECIALTY SURGERY/HAND CONDITIONS:**		166
A	Acute care: Surgical intensive care Burns	Experiential learning- hands on, clinical reasoning in surgical ICU and burns unit.	55
B	Sub-acute care: General surgical conditions Burns.	Experiential learning- hands on, clinical reasoning in Evaluation, goal setting, intervention, discharge planning, documentation based on clinical reasoning. Decision making with complex conditions and diagnosis, discharge to home. Contracture assessment, prevention and correction. Orthotic management, scar intervention.	75
C	Community based care: Hand rehabilitation Industrial injuries	Experiential learning- hands on, clinical reasoning: Evaluation and specialized assessments, goal setting, intervention, discharge planning, documentation based on clinical reasoning. Decision making with complex conditions and diagnosis in acute, sub acute stages of injury. Return to work and community programs.	36
BOT V/04	**MUSCULOSKELETAL AND OUTPATIENT REHABILITATION:**		**166**
A	Acute care: Orthopedic conditions Hospital based.	Experiential learning- hands on, clinical reasoning: Evaluation and specialized assessments, goal setting, intervention, discharge planning, documentation based on clinical reasoning. Decision making with complex conditions and diagnosis in acute injuries of the upper extremity, lower extremity, spine,	75

		and trauma care.	
B	Sub- acute care: Orthopedic ad trauma care	Goal modification, intervention for performance components and areas, preparation for discharge to home. Patient and family education- postoperative precautions, ADL and adaptive techniques.	75
C	Community based care: Outpatient rehab for various diagnoses – orthopedic Neurologic, any other conditions referred to the outpatient department	Return to home and community. Assessment for work fitness. Patient education, adaptive training, home and environmental assessment and modification.	16
BOT V/05	**MENTAL HEALTH AND DE-ADDICTION:**		**166**
A	Acute care: All psychiatric diagnoses, substance abuse and alcoholism.	Decision making with complex conditions and diagnosis in mental health and de-addiction centers Assessment of clients with psychiatric diagnoses, alcoholism, and substance abuse for performance ability. Intervention with groups, individuals during in-hospital stay.	50
B	Sub acute care: All psychiatric diagnoses, substance abuse and alcoholism, developmental disorders, learning disabled, ADHD.	Cognito-perceptual assessments. Intervention using group dynamics in theory and practice. Practice on structure and function of groups in treatment, therapeutic use of self, analysis of group treatment and group activities. Discharge planning from in-hospital through home, training for ADL, assessment for work fitness.	60
C	Community based care: Institutionalized, residual conditions with psychiatric diagnoses mentally challenged, substance abuse, alcoholism.	Evaluation, goal setting, intervention, discharge planning in community. Administration of standard tools to assist in functional diagnosis. Documentation based on clinical reasoning. Child guidance clinics for mentally challenged, emotional and behavioral problems. De-addiction centers. Day care centers.	56
BOT V/06	**NEUROSCIENCES**		**83**
A	Acute care:	Evaluation, goal setting, intervention, in acute post event neurologic diagnosis, post operative cases, and head injury. Administration of tests and scales for functional diagnosis - neurologic tests, postural control, balance, cognition, perception, learning, locomotion, co-ordination tests as prerequisite to execution of function.	13

		Intervention for performance components using neurophysiologic principles.	
B	Sub acute care:	Evaluation for goal modification. Intervention for patients in sub acute care and outpatient department. Application of advanced and specific neurophysiologic principles in intervention. Discharge to home planning.	60
C	Community based care: Conditions treated - CVA, pyramidal and extra pyramidal, cerebellar involvement, lesions of the spinal cord, movement disorders, and head injuries.	Re-evaluation for adaptive and restorative approaches in therapy. Goal modification and /or assessment for assistive technology, wheel chairs, independent living, level of care, home, and community re-integration.	10
BOT V/07	**COMMUNITY BASED REHABILITATION:**		**52**
i.	Assistive technology		14
	Elderly care, pediatric group, amputees, neuro diagnosis, trauma, mental health etc.-in community, home and in-hospital setting.	Prosthesis and orthotic assessments in sub acute care and community set ups. Designing devices with team interaction as appropriate to client needs.	
ii	Mobility assessment and intervention.		14
	Sub acute and community set ups –spinal injuries, CVA, amputees, cognitively challenged and elderly group.	Wheel chair prescriptions, wheel chair positioning devices, Wheel chair transfers, assessment for wheel chair maneuvering, Assessment for transfers training for transfers. Crutch and cane assessments and prescription.	
iii	Disability Assessment		10
	Based on Gazette of government of India and ICF, functional based assessments.	For various diagnoses in outpatient referrals based on current concepts of ICF.	
iv	Driver license training		14
	As needed for any visual-perceptual and cognitive motor issues that affect driving.	Visual-cognito – perceptual-motor assessments, simulated driver training in cerebral involvements, physical disabilities.	
BOT V/08	Reflective writing And practical assessment.	Log book maintenance, and practical assessment of student at the end of Internship.	15
BOT V/09	Project work	Includes introduction to application of research methods, evidence based research, literature review. Project on a clinical study, presentation in the form of oral presentation and written dissertation submission conveying statistical implications of the study. Student will infer and interpret results narrating the importance of the study in	45

		patient management.	
	Transition seminar	Educating student on applying for state and national memberships, applying for any certification examinations for practice license Insurance reimbursement strategies, know about job opportunities, question answer series on student queries.	7
	Total hours		1032

INTERNSHIP Transcript hours [1032]

Headings and Definitions:

Practicum: Includes participation in transition seminar and related interaction.

Presentation of research study conducted on evidence based practice, attributes to conducting literature review, collect and analyze data, answer a well developed clinical question.

Reflective writing: Includes log book maintenance; in the clinical field work includes writing of case records , evaluations, goals, intervention plans, documenting therapeutic procedures in intervention.

Written dissertation on the conducted study submitted to the institute.

Clinical Field work: Actual clinical work in clinical settings, all hands on procedures related to patient care, involves chart reviews, patient evaluation, assessments using standardized tools, goal planning, writing, and execution of goals, intervention procedures, communication to interdisciplinary teams, patient and family education. Discharge to home ,community, assessment for work resumption.

Bed side and outpatient treatments, ward rounds and discussions in general and specialty medical and surgical assignment are considered a part of field work. Students are trained for actual practice sessions on patients, interpretation of results related to functional limitations, recording cardio-pulmonary parameters, correlations of radiographs, Blood profiles and reports of other investigative procedures needed to correlate in therapy .

Reflective writing pertaining to individual cases is considered to be part of field work. . Discharge planning, assessment for community reintegration and home assessments are also included in clinical field work training. All documentation in regards to cases is maintained as a log book.

Credits:

15 unit hours of practicum, reflective writing, is equated as one credit.

30 unit hours of clinical field work offers one credit.

The internship includes:

Occupational Therapy field work in the areas prescribed includes work in acute care, sub-acute care and community based rehabilitation; students are also placed in specific community rehab placements as listed in the transcript hours.

Placements for Clinical field work practice:

Occupational Therapy applications in-

Code	Area of practice	Hours
BOT V/01	Pediatric and developmental intervention and Sensory integration.	166
BOT V/02	Medical conditions and Cardio-pulmonary rehabilitation / CPCR training.	166
BOT V/03	Surgical and Plastic surgery conditions.	166
BOT V/04	Musculoskeletal and Outpatient rehab.	166
BOT V/05	Mental health and De-addiction.	166
BOT V/06	Neurosciences.	83
BOT V/07	Community Rehabilitation	52
	Total clinical hours (Areas of Practice)	**965**
BOT V/08	Reflective Writing Project Work	15
BOT V/09	Project Work	45
BOT V/10	Transition Seminars	07
	Total Transcript Hours	**1032**

Mandatory requirements –

Students need to fulfill the recommended attendance as guided by university rules.

During each clinical assignment, the student is expected to focus on arriving at a functional diagnosis, practice clinical skills on patients under partial &/or distant supervision of clinical &/or teaching faculty.

Each student shall maintain a log book for all clinical placements; the student shall obtain signatures and remarks/grades from the respective section in- charge at the end of each clinical posting. The log book will be an official proof of the clinical work performed by the internee, at the end of internship assignments will be signed by the program director and will bear the seal of the institute. The log book shall be a valid document in any event of submission for the future.

Marking of students in the form of practical assessment by faculty at the end of internship to ensure clinical competency and ability for professional autonomy in delivery of Occupational Therapy services will be mandatory.

Transition Seminar: Students will attend the transition seminar on post professional memberships, affiliations to practice, essential credentials to continue practice, CEU programs, insurance systems for claims and coverage, national and international certifications to practice ,job opportunities, higher education

Cardio Pulmonary Cerebral Resuscitation: Each intern will attend a one day hands on certification seminar on CPCR at the hospital.

Transcript hours: 1032.

Code	Area	Hours-Acute & Sub acute	Hours-Community based OT	credit –total hours/ unit hours.	Credits
BOT/V-01	Pediatric intervention and sensory integration.	71.5	94.5	166/30	5.53
BOT/V-02	Medical conditions and Cardio-pulmonary rehab.	120	46	166/30	5.53
BOT/V-03	Surgical and plastic surgery conditions.	130	36	166/30	5.53
BOT/V-04	Musculoskeletal and outpatient rehab.	150	16	166/30	5.53
BOT/V-05	Mental health and de-addiction.	110	56	166/30	5.53
BOT/V-06	Neurosciences.	73	10	83/30	2.76
BOT/V-07	Community rehab :				
I	Assistive technology	-	14	14/30	0.46
Ii	Mobility assessment and intervention	-	14	14/30	0.46
Iii	Disability assessment	-	10	10/30	0.33
Iv	Driver license training	-	14	14/30	0.46
BOT/V-08	Reflective writing- - Case records in log book - Practical assessment for areas as above.			15/15	1.00
BOT/V-09	Project work.			45/15	3
	Transition Seminar			7	7
	Total hours	654.5	310.5	1032	43.12

****