

# **SYLLABUS**

## **BACHELOR IN MOBILITY SCIENCE** **Norms, Regulations & Course Content**

### **REHABILITATION COUNCIL OF INDIA**

(Statutory Body under the Ministry of Social Justice and Empowerment)

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# BACHELOR IN MOBILITY SCIENCE

## General Regulations:

### 1. Nomenclature

Bachelor in Mobility Science

### 2. Preamble

It is often stated in professional literature that "Restriction in the ability to get about" is one of the major challenges of visual impairment. However, techniques, methodologies and assistive devices are, currently, available which enable visually impaired individuals to overcome, to a great extent, this limitation and to move about with utmost efficiency, grace and skill. What is required is that we have professionally enriching programmes of preparing teachers and specialists to impart training in these crucial skills. This is, precisely, what the present course seeks to achieve.

The U. N. Convention on The Rights of Persons with Disabilities (UNCRPD) also lays great stress on orientation and mobility skills and training of the concerned staff. Articles 24 3 and 24 3 (a) of the Convention, call upon States Parties to take appropriate measures to facilitate the learning of orientation and mobility skills, among other educational and communication skills and modes. Similarly, Articles 20 and 20 (C) enjoin upon States Parties to undertake effective measures for providing mobility skills to persons with disabilities and to specialist staff working with persons with disabilities. Clearly, such training has overriding significance in the field of visual impairment.

Also, O& M training is one of the basic components of the essential or core skills which go to make up the total education of children with visual impairment. Our goal of providing access to elementary and secondary education for all children with disabilities including the visually impaired by 2020, as envisaged under Para 48 of the Government of India National Policy For Persons With Disabilities (2006), will remain only partially attained if we do not make adequate provision for O & M training for the visually impaired segment of our disabled population and the preparation of corresponding instructors and specialists.

Further, Section 33 of our Persons with Disabilities Act (1995) provides for reservation of one per cent posts for blind and low vision persons in all sectors of the economy in the government and public sector undertakings. Similarly, Section 40 of the said Act stipulates reservation of 3 per cent benefits for persons with disabilities in all poverty alleviation schemes. The National Finance and Development Corporation also provides support by way of soft loans to persons with disabilities to undertake their own self-employment ventures. In order to be able to take full advantage of these welcome initiatives and other emerging opportunities in the private and the corporate sector, it is essential that our visually impaired friends have sufficient scope and facilities for receiving meaningful and need-based training in all independent living skills--orientation, mobility, daily living, home management, physical fitness. The

course details given hereinafter lay down the required framework in terms of content and methodology for the preparation of the required professional staff who could transfer these crucial skills to the visually impaired or to those having additional disabilities, across the entire life span of the individual user.

Students successfully completing this course can look forward to employment opportunities as O&M instructors or specialists for the visually impaired in a variety of work-environments - special schools, inclusive settings, hospitals, vocational and rehabilitation centres, crisis management units for the lately blinded, placement agencies, CBR locations, early intervention units, etc. They can also function as master-trainers in the O& M sector.

### **3. Objectives of the Course**

The Course is intended for persons who wish to work with individuals who are visually impaired or those who have additional disabilities to enable them to become safe, efficient and independent travelers. The general aim of the course is to prepare O& M specialists or instructors to become successful professionals with the skills needed to work with people of any or all ages who have visual impairments, including those who have multiple disabilities and those from diverse geographical and cultural backgrounds.

The specific objective of the Course is to effectively address the O& M and related independent living skills components of the education and rehabilitation of the following:

- Those who are blind or have low vision;
- Those who are blind or are visually impaired and have additional disabilities;
- Those who are lately blinded or visually impaired;
- Those who belong to any of the above groups and come from a range of demographic, geographical and terrain-related backgrounds.

The Course seeks to cover a wide array of skills and activities concerning the above groups, with particular emphasis on orientation and mobility with additional inputs on such concomitant areas as:

- Daily living skills;
- Home management;
- Physical education and fitness;
- Recreation and leisure activities;
- Games and sports.

### **4. General Frame Work of the Course**

The Bachelor in Mobility Science Course consists of 8 theory papers. Universities are required to follow RCI prescribed syllabus content. In the case of difficulty in deciding the total number of papers including practicum, the Course Content provided herein needs to be incorporated. If necessary, some units may be added or combined to

satisfy the University requirements, without compromising the minimum contents approved by RCI.

## **5. Adequacy of the Syllabus**

The Syllabus prescribed herein is based on the minimum requirements and therefore, universities and colleges of education implementing the Course can exercise flexibility without compromising on the adequacy and validity of the contents prescribed by RCI.

## **6. Duration**

The duration of the Course is one academic year.

## **7. Distribution of Time for theory and practical work**

The Course should be spread over a period of 220 days (minimum) with 1320 working hours, in addition to the examination and admission days. The 8 theory papers have a total of 480 hours. 840 hours are allocated for practicum/practical work.

## **8. Eligibility for Admission**

Candidates securing 50% or more marks at a bachelor's degree examination in arts/science/commerce will be eligible for admission to the Course. Further, admission will be granted on the basis of an entrance test with merit being the deciding criterion. The regulations prescribed by the State Government and/or University concerning minimum eligibility criteria reservation policies will invariably be taken into consideration.

## **9. Course Pattern**

Semester/Non-Semester): The decision on whether to follow semester: or non-semester pattern norms followed in the University concerned to which the college is affiliated.

## **10. Passing marks**

The minimum marks for passing in the theory papers is 40% in each theory paper, 50% in each practical subject and 50% in aggregate.

## **11. Nature of Evaluation**

Both the systems of evaluation (internal and external) will be followed subject to the approval of the University. The pattern will be as follows subject to the approval by the University: Theory - Internal 10%, External 90%; Practicals - Internal 25%, External 75%.

## 12. Reappearing Facility

The students who fails in any paper may be allowed to appear in that particular paper again only for a maximum of 3 times within 3 years. If the student fails to pass the examination after 3 attempts he/she will be required to undergo the whole course again.

## 13. Improvements of Marks

The student will also be given opportunities for improvement of marks in the particular examination by reappearing in the specific paper in the next examination. The examination pattern may be as per the regulations of the implementing universities/colleges of education. However, the guidelines pertaining to the examination procedure prescribed by RCI may also be adopted.

## 14. Transitory Regulations

Whenever a Course or scheme of instruction is changed in a particular year, two more examinations immediately following thereafter will be conducted according to the old syllabus/regulations. Candidates not appearing at the examinations for failing therein will take the examination subsequently according to the changed syllabus/regulations.

## 15. Teacher-Student Ratio

The teacher-student ratio in the area covered by the Course will need to be lot more specific and limited, the ideal being 1-5. Considering the infrastructural facilities needed for the Course and based on a large number of practical activities involving training under a blind fold, a maximum number of 20 students may be admitted to the Course inclusive of 3 seats for foreign students. Additional intake should be approved by RCI. Qualifications required for teaching faculty and their number is presented below:

| Sl. No. | Name of the Post | No. of Posts | Qualifications  |
|---------|------------------|--------------|---|
| 1.      | Lecturer         | One          | A master's degree from a recognized University in arts/science/commerce with a degree in B.M.Sc (VI) and with experience of minimum of one year in work with the blind; or : Master's Degree from a recognized University with B. Ed. special education (VI) and Diploma/Certificate Course in O & M of minimum 6 months duration and 5 years of experience of work with the blind. |

|    |                |     |   |
|----|----------------|-----|---|
| 2. | O & M Educator | Two | Graduation in Arts/Science/Commerce and a degree in B. M. Sc. (VI) and having experience of minimum of one year of O & M Instruction; or: Graduation plus Diploma/Certificate Course (6 months duration) in O & M Training with 2 years experience in O & M Instruction |
|----|----------------|-----|---|

**16. Infrastructural Facilities:** The Universities/ colleges offering the Course should have the following infrastructural facilities:

**i. Space-requirements:** There should be a minimum one classroom (20x15 feet), one resource room, one ILS lab., one seminar room, one staff room, one room for the Teaching Faculty, one library with an open space for conducting mobility practicals of 50x20 square meter.

**ii. Other Requirements:** Blind folds, ear plugs, simulators, wheelchairs, canes of all types, audio-tactile maps, detachable models of eye and the ear.

**iii. Model School:** The University/ college offering the Course should have a Model School for Blind Children or a Rehabilitation Centre attached to it for conducting practice teaching lessons. Until such a facility is made available in the premises of the institute, a model school/rehabilitation centre for the blind in the locality can be adopted.

**17. Certification as a Registered Professional:** It is mandatory for every teacher/instructor for the blind including mobility trainers/instructors to obtain a Registered Professional Certificate from the Rehabilitation Council of India to work in the field of special education in India.

**18. Award of Degree:** To be awarded by the affiliating Universities.

**19. Curriculum:** Detailed curriculum for theory papers and practical subjects is enclosed.

# BACHELOR IN MOBILITY SCIENCE

## Detailed Course Content

### Paper 1: Foundation of Mobility Science

Maximum Marks 60

Teaching Hours 60

#### Objectives:

After studying this Paper, the student – trainees will be able to:

1. Comprehend and clearly analyze the concepts and components of Orientation & Mobility as well as their inter-relationship in the historical perspective.
2. Clearly delineate the roles of O & M specialists in the Indian context and with reference to various terrains along with implications of visual impairment with additional disabilities.
3. Apply basic information relating to training in such independent living skills as self-care, home management, O & M, Physical Education and sports.
4. Demonstrate understanding of basic O & M terms and devices.
5. Acquire information relating to basic concepts of development of typical Orientation & Mobility along with the impact of visual impairment of such development.
6. Get acquainted with the roles of other senses in developing O & M as also special O & M needs of the visually impaired across the life span.

#### Unit – 1: Introduction to Mobility Science

12 Hours

- Meaning and Importance of Orientation
- Meaning and Importance of Mobility
- Components of Orientation and Mobility
- Interrelationship of Orientation and Mobility
- History and evolution of Orientation and Mobility

#### Unit 2: Orientation & Mobility in the Indian Context

12 Hours

- Role and responsibilities of the Orientation & Mobility Instructor
- Various work environments of the Orientation & Mobility Instructor
- Orientation and Mobility in Rural areas
- Orientation & Mobility in varying settings and terrains
- Visually Impaired persons with additional disabilities

**Unit 3: Areas of instruction****12 Hours**

- Self care
- Home management
- Orientation and mobility
- Physical Education & Sports
- Safety education

**Unit 4: Basic Orientation and Mobility Terminologies and Devices****12 Hours**

- Basic Terminology relating to Orientation and Mobility - training, landmarks, clues, cues, shoreline, squaring off, direction taking
- Orientation and Mobility Devices
- Canes - types, part of canes, 6 considerations
- Electronic devices - GPS, beepers and sound signals
- Maps

**Unit 5: Development of Orientation and Mobility****12 Hours**

- Typical development sequence of Mobility and Orientation
- Role of vision in the development of Orientation and Mobility
- Impact of visual impairment on the development of orientation & mobility skills
- Role of other senses in developing orientation and mobility
- Special orientation and mobility needs of persons with visual impairment across the life span

**References:**

Blasch, B.B., Wiener, W.R. Welsh R.L.. (3rd edition 2010) Foundations of Orientation and Mobility. New York: American Foundation for the Blind

Fazzi, D. & Peters Meyer, B. (2001) Imagining the Possibilities: Creative Approaches to Orientation & Mobility Instruction for Persons Who Are Visually Impaired. New York, AFB Press

Hill, E. & Ponder, P. (1976). Orientation and Mobility Techniques: A guide for the practitioner. New York: American Foundation for the Blind

Jacobson, W. H. (1993) The Art and Science of Teaching Orientation & Mobility to Persons with Visual Impairments. New York: American Foundation for the Blind.



## **Paper 2: Impact of Disabilities on Orientation & Mobility Skills**

**Maximum Marks 60**

**Teaching Hours 60**

**Objectives:** After studying this Paper, the student-teachers will be able to:

1. Obtain and use basic information relating to the structure and functioning of the eye.
2. Clearly distinguish and analyze the symptoms and basic management of common eye diseases as well refractive errors.
3. Comprehend and demonstrate the skill of analyzing the implications of visual impairment and hearing disability as also deaf-blindness and their impact on O & M.
4. Clearly analyze the impact of visual impairment and loco-motor disability including cerebral palsy with reference to O & M skills.
5. Demonstrate the ability to analyze the impact of visual impairment and mental retardation with reference to O & M skills.

### **Unit 1: Structure and Function of the Eye**

**12 Hours**

- Anatomy and physiology of the eye
- Definition, classification
- Incidence and prevalence of visual impairment in India
- International classification of Impairment including ICF
- Interpreting eye reports

### **Unit 2: Common Eye Diseases and Refractive Errors**

**12 Hours**

- Refractive errors - myopia, hyperopia, astigmatism, presbyopia, cataract, corneal ulcer
- Common eye diseases in India - glaucoma, xerophthalmia, trachoma, retinitis pigmentosa, albinism, macular degeneration, optic nerve atrophy and cortical visual impairment.
- Functional implications of common eye diseases in India - glaucoma, xerophthalmia, trachoma, retinitis pigmentosa, albinism, macular degeneration, optic nerve atrophy and cortical visual impairment.

### **Unit 3: Visual Impairment and Hearing Disability**

**12 Hours**

- Anatomy of the ear
- Definition of hearing impairment - PWD Act and ICF
- Types of hearing impairment and their implications for O & M
- Understanding deaf-blindness
- Implication of deaf-blindness in orientation and mobility

### **Unit 4: Visual Impairment and Loco-motor Disability**

**12 Hours**

- Definition of Loco-motor disability - PWD act and ICF
- Types of Loco-motor disability
- Implication of Loco-motor disability for O&M
- Understanding cerebral palsy
- Implications of cerebral palsy in orientation and mobility

### **Unit 5: Visual Impairment and Mental Retardation**

**12 Hours**

- Definition of Mental Retardation - PWD act and ICF
- Classification of Mental Retardation
- Implications of Mental Retardation in orientation and mobility
- Implications of visual impairment and mental retardation in O&M

#### **References:**

Beers, Mark H. ed. *The Merck Manual of Medical Information Home Edition*. Merck and Company Inc., Current Edition.

Cassel, G., Billig, M., et al (2001) The Eye Book: A complete guide to eye disorders and health. Large Print Edition. Johns Hopkins University Press: Baltimore, MD

Cassin & Solomon (1997) *Dictionary of Eye Terminology*, 4<sup>rd</sup> edition, Triad Publishing Co: Gainesville, FL.

Cassin & Solomon (2006) Dictionary of Eye Terminology, 5<sup>th</sup> edition, Triad Publishing Co.: Gainesville, FL.

Duckman, R.H., ed. (2006) Visual development, diagnosis, and treatment of the pediatric patient. Lippincott Williams & Wilkins: Philadelphia.

Marieb, Elaine Nicpon. *Essentials of Human Anatomy and Physiology*. Boston: Benjamin Cummings Publishing Co., (Current Edition)

Rothenberg, Mikel and Chapman, Charles F. *Dictionary of Medical Terms*. New York: Barron's Educational Series, Inc., Current Edition.

Sauerburger, D. (1993). *Independence without sight or sound*. New York: American Foundation for the Blind.

## **Paper 3: Methods & Techniques of Orientation and Mobility Training**

**Maximum Marks 60**

**Teaching Hours 60**

### **Objective:**

After studying this Paper, the student-trainee will be able to:

1. Use effectively the human guide techniques for the benefit of the visually impaired in varying situations.
2. Acquire necessary information and insights regarding the application of Orientation and pre-cane skills.
3. Clearly demonstrate the ability to use and impart training in the use of different cane techniques.
4. Get familiarized with basic concepts and skills of out door travel under a blind fold

### **Unit1 1: Human Guide Techniques**

**12 hours**

- Grip, stance, hand-position, speed-control
- Negotiating:  
Narrow spaces,  
Seating arrangements,  
Staircases, elevators, escalators  
Doorways
- Turns
- Changing sides
- Sighted guide in different terrains & conditions - muddy path, traffic, etc
- Cane techniques with sighted guide

### **Unit 2: Orientation & Pre- Cane Skills**

**12 Hours**

- Square off , lining and trailing
- Upper and lower body protection
- Room familiarization
- Using oral description for orientation of environment
- Search patterns
- Building map reading skills

### **Unit 3: Cane Techniques**

**12 Hours**

- Touch technique
- Touch and drag technique
- Diagonal cane technique

- Use of cane in ascending and descending stairs
- Correct posture and gait

#### **Unit 4: Basic Travel Skills**

**12 Hours**

- Landmarks, Clues and Cues
- Shore line, squaring off, clock direction
- Sound masking and sound shadow situations
- Movement of traffic
- Asking for help: when and how

#### **Unit 5: Outdoor Travel Skills**

**12 Hours**

- Street crossing
- Intersection with and without lights and zebra crossing
- City travel - market place, malls, residential blocks, crowded places
- Use of public transportation
- Over-bridge and subways

#### **References:**

Blasch, B.B., Wiener, W.R., & Welsh, R.L.(1997). Foundations of Orientation and Mobility (2<sup>nd</sup> edition) . New York: American Foundation for the Blind

Hill, E. & Ponder, P. (1976). Orientation and Mobility Techniques: A guide for the practitioner. New York: American Foundation for the Blind

Knott, N.I. (2002). Teaching orientation and mobility in the schools: An instructor's companion. New York: American Foundation for the Blind Press.

LaGrow & Weessies (1994). Orientation and Mobility: Techniques for Independence Dunmore Press Limited.

## **Paper 4: Orientation and Mobility for persons with Low vision**

**Maximum Marks 60**  
**Teaching Hours 60**

### **Objectives:**

- After studying this paper the student-trainees will be able to:
1. Define low-vision
  2. Clearly delineate the psycho-social and educational implications of low vision
  3. Address effectively variously aspects of low-vision rehabilitation with special reference to orientation & Mobility
  4. Focus on training in the use of low vision devises, vision stimulation and visual efficiency training
  5. Clearly grasp and apply techniques and methods of O & M Training for persons with Low-vision in different settings.
  6. Acquire necessary competence to address O & M needs of special groups of low-vision persons.
  7. Acquire necessary competence to address O & M needs of persons with field lose.

### **Unit 1: Introduction to low vision**

**12 Hours**

- What is low vision
- Near and distance vision
- Field restrictions
- Psycho-social implication
- Educational implications

### **Unit 2: Vision rehabilitation training**

**12 Hours**

- Assessment of vision for orientation and mobility
- Low vision devices with special reference to telescopes, Environmental modifications
- Vision stimulation
- Visual efficiency training with reference to O&M

### **Unit 3: Techniques and methods of training**

**12 Hours**

- Orientation
- Indoor travel
- Outdoor travel
- Rural areas
- Hilly and desert regions

**Unit 4: Addressing O& M needs of special groups of persons with low vision**  
**12 Hours**

- persons with progressive vision loss
- persons with night blindness
- persons with loss of contrast & colour perception
- persons with loss of depth perception

**Unit 5: Addressing O&M needs of persons with field loss**  
**12 Hours**

- kinds of field loss
- implications of central field loss for O&M
- implications of tunnel vision/ restricted field for O&M
- implications of hemapoiesis for O&M
- implications of patchy field loss - scotomas, coloboma

References:

Corn, A.L. & Koenig, A.J. (1996). *Foundations of low vision: clinical and functional perspectives*. New York: AFB Press.

Levak, N. (1994) Low Vision: A Resource Guide with Adaptations for Students with Visual Impairments. Texas School for the Blind.

Lueck, A.H., (2004) *Functional vision: A practitioner's guide to evaluation and intervention*. New York: AFB Press.

Program in Low Vision Therapy (2004) Region IV Education Service Center: Houston, Texas.

**Paper 5: Physical Education, Sports and Leisure Activities for the Visually Impaired**

**Maximum Marks 60  
Teaching Hours 60**

**Objectives:**

After studying this paper, the student-trainees will be able to:

1. Critically analyze the concepts of physical education and physical fitness along with their aims and relevance for the visually impaired.
2. Learn and demonstrate the skills relating to various indoor games and activities for the visually impaired.
3. Learn and demonstrate the ability to conduct various outdoor sports for the visually impaired.
4. Acquire meaningful information and apply the same in the Indian context about different national and international sports bodies for the persons with disabilities, including the visually impaired.
5. Become cleanly conscious of an utilize various skills and techniques pertaining to adventure sport, camping and development of hobbies for the visually impaired.

**Unit 1: Physical Education and Physical Fitness**

**12 Hours**

- Physical education-meaning and special relevance for the visually impaired
- Aims of physical education with particular reference to the visually impaired
- Physical fitness--concept, components and special significance
- calisthenics and free hand exercises
- Asanas, Dandas and Sit ups

**Unit 2: Indoor Games and Activities**

**12 Hours**

- Ludo, Snakes and Ladders, Carom and Scrabble
- Chess and Draughts
- Other minor games
- Aerobics
- Inclusive games for the visually impaired and the sighted

**Unit 3. Outdoor Sports for the Visually Impaired**

**12 Hours**

- Cricket and Football
- Kabaddi and Wrestling
- Athletics
- Swimming
- Other major sports – Gole-ball, Power-Lifting, Volley-Ball, Basket-Ball

#### **Unit 4: Major Sports Bodies**

**12 Hours**

- International Paralympics Committee,
- International Blind Sports Federation,
- Paralympics Committee of India,
- Indian Blind Sports Association
- Association of Cricket for the Blind in India and other leading bodies.

#### **Unit 5: Adventure Sports and Leisure**

**12 Hours**

- Trekking, Rock-climbing, Mountaineering;
- Recreation and leisure activities--special significance
- Development of hobbies--various types
- Camping--concept, special relevance and how to organize camps for the blind
- Basics of stress-management through recreation and leisure activities

#### **References:**

Bansal, R. S. (1988) Primary Shikshak, NCERT, New Delhi

Nash, Jay B. (1953), Philosophy of Recreation and Leisure, C. V. Mosby, St. Louis, MO

Corbin, Charles B., Linus J., (1980), Concepts in Physical Education, Instructors Manual, Brown Company, Dubuque, Iowa

Harvey Grout and Gareth Long, (2009), [Improving Teaching and Learning in Physical Education](#), Amazon Publishing, U.K.

Jesse, Feiring, Williams, W. B, (1964), Principles of Physical Education, Saunders Co. Philadelphia London.

Nash [Jay B.](#) (1953), Philosophy of Recreation and Leisure , C. V. Mosby, St. Louis, MO



**Paper 6: Advanced Methods & Techniques of Orientation and Mobility Training**

**Maximum Marks 60  
Teaching Hours 60**

**Objectives:**

After studying this Paper, the student-trainees will be able to:

1. Internalize in clear terms the overall significance of sensory training with reference to orientation and mobility
2. Learn and apply age-appropriate and purposeful mobility skills for visually impaired individuals with additional disabilities
3. address special psychological needs and critical health issues relating to orientation and mobility for the elderly visually impaired
4. Get prepared to take up the challenge of imparting O & M skills to the visually impaired in varying rural settings
5. Ascertain and assess short-term and long term goals of Orientation and Mobility for visually impaired children and youth
6. Learn the techniques of preparing lesson plans for O & M training.

**Unit 1: Orientation and Mobility skills for young children**

**12 Hours**

- Concept building- body parts, things in the environment, parts of buildings, safety commands, numbering and direction terms
- Encouraging use of senses - hand use, finger dexterity and exploration, auditory training, awareness of different textures, using residual vision
- Promoting good motor skills - building body image, balance
- Pre -cane skills: trailing, modified sighted guide
- Selecting appropriate pre-canes

**Unit 2: Teaching strategies for individuals with additional disabilities 12 Hours**

- Developing orientation skills in persons with motor impairment
- Building O&M skills in wheelchair users
- Teaching O&M skills to persons who are deaf-blind
- Teaching O&M skills to persons who are visually impaired with mental retardation
- Modification of techniques and devices in instruction

**Unit 3: Mobility for the Elderly with Visual impairment**

**12 Hours**

- Addressing psychological readiness
- Establishing personal priorities
- Health issues among the elderly affecting orientation and mobility
- Teaching the techniques for self care and independence
- Reorientation to environment using residual senses

#### Unit 4: Rural Mobility

12 Hours

- Orientation in large open spaces
- Establishing routes and landmarks
- Use of long cane in marshy places, uneven paths & fields
- Use of rural transportation
- Safety hazards in rural areas

#### Unit5: Assessment

12 Hours

- Sensory assessment for orientation and mobility
- Assessment of orientation and mobility needs
- Assessment of orientation and mobility skills
- Setting long term and short term goals
- Preparing lesson plans

#### References:

Allen, W., Griffith, A., & Shaw, C. (1987). *Orientation and mobility: Behavioral objectives for teaching older adventitiously blind individuals*. New York: Center for Independent Living.

Heydt, Allon, Edwards, Cushman, and Clark. *Perkins Activity and Resource Guide: A Handbook for Teachers and Parents of Students with Visual and Multiple Disabilities*. 2<sup>nd</sup> edition, Watertown, MA: Perkins School for the Blind, 2004. Ordering information: [www.perkins.org](http://www.perkins.org)

Orr, A. (1998). Issues in aging and vision: A curriculum for university programs and in-service training. New York: AFB Press

Niemann, S. & Jacob, N. (2000). *Helping children who are blind. Family and community support for children with vision problems*. Berkeley, CA: The Hesperian Foundation.

Paskin, N. (1987). *Sensory development- Behavioral objectives for teaching older adventitiously blind individuals*. New York: Center for Independent Living.

Pogrund, R., Fazzi, D., et. Al., eds. Early Focus: Working with Young Blind and Visually Impaired Children and Their Families, Second Edition: AFB, 2002

Texas School for the Blind (2000). TAPS, 2<sup>nd</sup> edition - Teaching Age-Appropriate Purposeful Skills, An O&M Curriculum for Students with Visual Impairments & Comprehensive Assessment

Sauerburger, D. (1993). *Independence without sight or sound*. New York: American Foundation for the Blind.

## **Paper 7: Training in Independent Living Skills**

**Maximum Marks 60**  
**Teaching Hours 60**

### **Objectives:**

After studying this Paper, the student-trainees will be able to:

1. Identify certain daily living skills conducive to promoting independence in life for the visually impaired.
2. Get necessary insights about the crucial importance of systematic training in independent living including home-management & house-keeping.
3. Grasp and apply under a blind fold cooking and culinary skills to transfer the same to the visually impaired.
4. Pickup skills relating to the efficient use of public utilities.
5. Learn the use of devices relating to independent living skills.

### **Unit 1: Daily Living Skills**

**12 Hours**

- Self care & grooming
- Eating skills and etiquette
- Identification of coins and currency notes
- Time concept
- Signature writing

### **Unit 2: House Keeping**

**12 Hours**

- Cleaning, maintenance and arrangement of household articles
- Washing and ironing
- Closing doors, cupboards and windows
- Use and simple maintenance of household appliances
- Mending and repairing clothes

### **Unit 3: Cooking**

**12 Hours**

- Use of kitchen equipment
- Lighting stoves, candle, lamp
- Washing and cutting vegetables & fruits
- Making tea and coffee
- Cooking food
- Serving & laying of food

**Unit 4: Public utilities****12 Hours**

- Bank & ATM
- Post Office
- Payment of bills
- Railway booking
- Dispensary and General Hospitals

**Unit 5: Independent Living Devices for the visually impaired****12 Hours**

- Kitchen devices
- Weights and measurements
- Health and medication
- Communication devices
- Calculation devices
- Safety devices

**References:**

Duffy, M. (2002) *Making Life More Livable: Simple adaptations for living at home after vision loss*. New York: AFB Press.

Loumiet R. & Levack, N. (1993). Independent Living: A Curriculum with Adaptations for Students with Visual Impairment. -Austin TX: Texas School for the Blind and Visually Impaired.

Volume 1. Social Competence

Volume II. Self-Care and Maintenance of Personal Environment

Volume III. Play and Leisure

Ponchilla, P. & Ponchilla, S. (1996) Foundations of Rehabilitation Teaching with are Blind or Visually Impaired. New York: American Foundation for the Blind.

Tuttle, D., & Tuttle, N. (1996) *Self-esteem and Adjusting with Blindness: the process of responding to life's demands*. 2nd edition. Charles Thomas: Springfield, Illinois

**Paper 8: Orientation to various work settings and Map- Preparation for O&M Educators**

**Maximum Marks 60  
Teaching Hours 60**

**Objectives:**

After studying this paper, the student-trainees will be able to:

1. Acquire information about ongoing educational programmes – special schools inclusive education – and related government schemes.
2. Show familiarity with vocational training and independent living centres for persons with disabilities including the visually impaired
3. Acquire knowledge of the concept, philosophy and components of community based rehabilitation and related models as also the roles of O & M in CBR.
4. Subscribe to the rights-based approach to service delivery for the visually impaired and
5. Address the needs of rehabilitation of persons with disabilities, with reference to O & M
6. Acquire necessary skill and competence for preparing mobility maps.
7. Get acquainted with the basics of the Braille system.

**Unit 1: Educational Programs 12 Hours**

- Special schools
- Inclusive education
- Government schemes
- Home based education
- Higher education

**Unit 2: Vocational training and independent living centers 12 Hours**

- Special vocational training centers for the blind
- Mainstream vocational training institutes
- Government VRC's
- CRC's
- Independent living centers

**Unit 3: Rehabilitation 12 Hours**

- Concept and philosophy of rehabilitation
- UNCRPD and the Rights based approach
- Types of rehabilitation
- Barrier - free
- O&M in the overall rehabilitation process

**Unit 4: Community Based Rehabilitation programs 12 Hours**

- Concept Philosophy and Importance of CBR
- Components of CBR
- CBR Models - Disability Specific CBR, Cross Disability CBR
- CBR and CPR (Community –Participatory Rehabilitation)
- Role of O&M instructors in CBR

**Unit 5: Braille and Preparation of Maps 12 Hours**

- Louise Braille and Origin of Braille System
- 7-line system
- Bharati Braille in India
- Preparation of Tactile Maps –Procedure and Techniques
- Preparation of Audio Maps – Relevance, Procedure and Techniques

**References:**

Braille Gyan Kosh, Publisher, NIVH, Dehra Dun, Uttarakhand

Punani, Bhushan & Rawal Nandani, 1997 Community Based Rehabilitation, Ahmedabad, NAB

Pandey R. S. & Advani Lal, Ist ed. 1995 Perspectives in Disability and Rehabilitation, New Delhi, Vikas Publishing House Pvt. Ltd.

Goldenson Robert M. ( c ) 1978, Disability and Rehabilitation Handbook, Philippines Mc Grew – Hill, Inc.

Oyibrohoro, John M. A. ( c ) 2005, Aural Rehabilitation for People with Disabilities, Amsterdam Elevier Academic Press.

Ahluwalia H.P.S. & Singh J.P. 2006 International Conference on Human Resource Development in the area of Disability Rehabilitation, New Delhi, Kanishka Publishers, Distributors.

## PRACTICAL WORK

|           |   | Teaching Hours   | 840 |
|-----------|---|------------------|-----|
|           |   | Marks            | 840 |
| <b>1.</b> | <b>O &amp; M Skills</b>   | <b>400 Hours</b> |     |
| 1.1.      | Sighted guide Techniques in different indoor & out door settings to help the blind, low-vision and deaf-blind users.  | <b>100 Hours</b> |     |
| 1.2       | Pre-cane skills with simulation imparting training to blind, low-vision & deaf-blind V. I. Wheel Chair users. (The candidates would be provided training under the related simulation conditions e.g. blindfolds, eye-shields, ear-plugs, wheel chairs)   | <b>100 Hours</b> |     |
| 1.3       | Cane Travel – indoor & outdoor in different settings: rural, urban hilly areas etc. with simulation for imparting training to blind, low-vision and deaf-blind V.I. wheel chair users (The candidates would be provided training under the related simulation conditions e.g. blindfolds, eye-shields, ear-plugs, wheel chairs) | <b>200 Hours</b> |     |
| <b>2.</b> | <b>Practice Teaching</b>  | <b>100 Hours</b> |     |
| 2.1       | Sighted guide   | 10 lessons       |     |
| 2.2       | Pre-cane skills   | 10 lessons       |     |
| 2.3       | Indoor travel with cane   | 10 lessons       |     |
| 2.4       | Outdoor travel with cane  | 20 lessons       |     |
| 2.5       | I.L.S   | 05 lessons       |     |
| 2.6       | Physical Education and Sports   | 05 Lessons       |     |
| <b>3.</b> | <b>Independent Living Skills</b><br>(Should cover related components as given<br>In the corresponding theory paper -4)  | <b>100 Hours</b> |     |
| <b>4.</b> | <b>Physical Education and Sports</b><br>(Should cover related components as given<br>In the corresponding theory paper - 5)   | <b>100 Hours</b> |     |
| <b>5.</b> | <b>Preparation of Tactile and Audio Maps</b>  | <b>70 Hours</b>  |     |
| <b>6.</b> | <b>Braille</b>  | <b>70 Hours</b>  |     |
| 6.1       | Braille numerals  |                  |     |
| 6.2       | Standard English Braille Grade One  |                  |     |
| 6.3       | Hindi/State/Regional Language Code (Un-contracted)  |                  |     |

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