Guidelines for Credit Based Course on Pedagogical Aspects for Teaching Divyangjans and Persons with Specific Learning Disabilities (SLDs)

सत्यमेव जयते

ज्ञान-विज्ञान विमुक्तये

UNIVERSITY GRANTS COMMISSION
Ministry of Education, Government of India
Bahadur Shah Zafar Marg, New Delhi-110002

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विश्वविद्यालय अनुदान आयोग
University Grants Commission
(शिक्षा मंत्रालय, भारत सरकार)
(Ministry of Education, Govt. of India)

MESSAGE

I am immensely pleased to inform you that University Grants Commission is bringing out guidelines for **"Credit Based Course on Pedagogical Aspects for Teaching Divyangjans and Persons with Specific Learning Disabilities (SLDs).**" These guidelines will play a very significant role in making teaching and learning inclusive in Higher Education.

These guidelines have been prepared as per the provisions given in National Education Policy 2020, emphasizing equity and inclusion as the cornerstone of all educational decisions to ensure that all students can thrive in the education system. It signifies the inevitability of redefining the curriculum, keeping pace with the liberalization and globalization in education to allow students, irrespective of any diversity, including students with disabilities, an accessible mode of mobility to various educational institutions with the facility of credit transfer. Evaluation in the credit system needs to describe an educational program by attaching credits to its components based on different parameters such as course load, learning outcomes, and contact hours for teaching and learning. With the flexibility in the selection of subjects and courses, an inclusive Pedagogy characterized by the use of multiple modes of delivery, addressing various learning styles and learning needs of Divyangjans and students with specific learning disabilities (SLDs), needs to be promoted at all levels of education.

The inclusive practice in education ensures quality education without discrimination against any learner. The guidelines specifically focus on pedagogical aspects of teaching persons with disabilities, including specific learning disabilities in general, and teaching credit-based courses to persons with disabilities, including specific learning disabilities, particularly in a non-conducive inclusive environment. University Grants Commission aims to increase the participation of persons with disabilities in higher education and improve the teaching-learning process and environment so that persons with disabilities, including specific learning disabilities, can enhance their skills, knowledge, and inclusive participation in higher education so that they may become productive citizens of a pluralistic society.

UGC has always been committed to facilitating inclusive practice in all higher education institutions for academic excellence achievement and the holistic development of persons with disabilities.

Prof. M. Jagadesh Kumar

New Delhi,
August, 2023

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ज्ञान-विज्ञान विमुक्तये
प्रा. मनिष र. जोशी
सचिव एवं मुख्य सतर्कता अधिकारी
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विश्वविद्यालय अनुदान आयोग
University Grants Commission
(शिक्षा मंत्रालय, भारत सरकार)
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Prof. Manish R. Joshi

New Delhi,
August, 2023

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Chapter 1

Introduction

1.1 Educational Status of Persons with Disabilities

National Sample Survey Organization (NSSO) 2011 reported that 2.2% of the population has a disability. This data consists of only 7 disabilities as per the erstwhile Persons with disabilities act, 1995, of which 2.3% are from rural areas and 2% are from urban areas. The prevalence ofdisability is also high among males than females, among males it is 2.4% and among females, it is 1.9%. Out of 2.2% disabled population, only 1.46 crore people are literate, malesconstitute 49% of the population in rural areas and 20% in urban and only 8.5% disabled are literate, comprising 9% males and 7.7% females. According to the survey, only 0.56% of the total students are enrolled in higher education. The data suggests that, there is a need totake more specific measures for better inclusion and participation of the disabled in rural areasand the need to support and enhance the female literacy rate at all levels of education, especiallyat the higher education level. So, there is a great need for making some Guidelines for Credit Based Courses on Pedagogical Aspects for Teaching Divyangjan at Higher Education Institutions (HEIs).

The latest policy document of National Education Policy 2020 (NEP 2020) emphasizes equity and inclusion in higher education. It also aims at building the overall development of students by strengthening infrastructure including open and distance learning, and online education, and increasing the use of technology in education particularly in higher education. NEP 2020 puts the provision of Academic Bank of Credit (ABC) which allows students of undergraduate (UG) and postgraduate (PG) degree courses with multiple entries and exit in a stipulated time period. The credit on these courses consists of 40 for the certificate, 84 for the diploma program, 120 for a bachelor's degree program, and 160 credits for an honors or research degree program.

The Choice Based Credit System (CBCS) provides an opportunity for students irrespective of any diversity including students with disabilities to select courses from the prescribed options, comprising core, elective, and skill or foundation-based courses. CBCS aims to redefine the curriculum, keeping pace with the liberalization and Globalization in education to allow students with an easy mode of mobility to various educational institutions with the facility of credit transfer. Evaluation in the credit system needs to describe an educational program by attaching credits to its components. In the higher education system, it may be based on different parameters such as course load, learning outcomes, and contact hours for teaching and learning.

CBCS also provides flexibility in opting for courses and subjects, skills and capacities for the development of productive human beings. With flexibility in the selection of subjects and courses, an Inclusive Pedagogy needs to be promoted at all levels of education for meeting theacademic needs of all students including Socio-economically Disadvantaged Groups (SEDGs) and students with disabilities. It is

characterized by the use of multiple modes of delivery, addressing multiple learning styles and learning needs of students from diverse backgrounds including students with disabilities. To achieve this, accessible instruction is one of the basic requirements for pedagogical aspects of teaching and learning students with disabilities. In India, continuous efforts are being made through various legislations for making society inclusive in terms of the education of students with disabilities.

1.2 National Curriculum Framework

National Curriculum Framework (NCF)-2005 has emphasized flexibility in the curriculum to accommodate the diverse categories of students including those with disability in both cognitive and non-cognitive areas. NCF-2005 recommends that the policy of inclusion is to beimplemented throughout the educational system ensuring the participation of all students. NCF 2005 is directed towards developing an inclusive teaching-learning process and meaningful experience for students with diverse needs.

1.3 United Nations Convention on Rights of Persons with Disabilities (UNCRPD)

The purpose of UNCRPD is to promote, protect and ensure the full and equal enjoyment of human rights and fundamental freedom by all persons with disabilities and to promote respectfor their inherent dignity, and individual autonomy including the freedom to make one's own choices and independence. It advocates reasonable accommodation for persons with disabilities and demands accessibility in all areas of life, health, education, and infrastructure. It recognizes the rights of persons with disabilities to education. To realize this right without discrimination and based on equal opportunity, will ensure an inclusive education system at all levels with lifelong learning. It emphasizes the full development of human potential, a sense of dignity, and self-worth, and the strengthening of respect for human rights, fundamental freedoms, and human diversity. It directed the overall development of persons with disabilities for their personality, talents, and creativity, as well as their mental and physical abilities, to their fullest potential by enabling persons with disabilities to participate effectively in a free society.

Persons with disabilities will receive the support required, within the general education system, to facilitate their effective education. Reasonable accommodation of the individual's requirements will be provided. Effective individualized support measures are provided in environments that maximize academic and social development, consistent with the goal of full inclusion. Persons with disabilities learn life skills and social development skills to facilitate their full and equal participation in education. Learning will be facilitated through Braille, alternative script, augmentative and alternative modes, means and formats of communication, orientation, and mobility skills, by facilitating peer support and mentoring. Learning sign language and the promotion of the linguistic identity of the deaf community will be prioritized. It ensures the education of students who are blind, deaf, or deaf-blind in the most appropriate languages, modes, and means of communication in an environment, which maximizes their academic and social development. Persons with disabilities will be able to access general tertiary education, vocational training, adult education, and lifelong learning without discrimination on an equal basis with others. To this end, it will ensure reasonable accommodation for persons with disabilities.

1.4 National Policies for Persons with Disabilities, 2006

This policy recognizes that persons with disabilities are valuable human resources for the country and seek to create an environment that provides those equal opportunities, protection of their rights, and full

participation of the disabled in society. The focus of the policy includes the Prevention of Disabilities, Rehabilitation Measures for women with disabilities issues, a barrier-free environment, issues of Disability Certificate, Social Security, Promotion of NGOs, research, and sports recreation & cultural life for disabled people in India.

As per the policy, students with disabilities are the most vulnerable group and need special attention, that the Government would strive to ensure the right to care, protection, and security for students with disabilities and to ensure the right to dignity, equality, and creating an enabling environment where Persons with Disabilities can exercise their rights, enjoy equal opportunities and full participation following various statutes. Policy directed to ensure inclusion and effective access to education, health, and vocational training along with specialized rehabilitation services for children with disabilities. It also ensures the right to development as well as recognition of special needs and care, and protection of children with severe disabilities.

It directed a barrier-free environment to enable persons with disabilities to move about safely and freely, and use the facilities within the built environment. The goal of barrier-free design is to provide an environment that supports the independent functioning of individuals so that they can participate without assistance, in everyday activities. Therefore, to the maximum extent possible, buildings/places/transportation systems for public use will be made barrier-free.

1.5 Rights of Persons with Disabilities (RPwD) Act, 2016

The Rights of Persons with Disabilities (RPwD) Act 2016 defines inclusive education as a system of education wherein students with and without disabilities learn together and the system of teaching and learning is suitably adapted to meet the learning needs of different types of students with disabilities. Twenty-one types of disabilities are specified in the RPwD act, 2016. Students with all these types of disabilities should have access to higher education. The higher education system should ensure equity and inclusion for persons with disabilities in all categories. Among the 21 types of disabilities specified under the RPwD Act, 2016, some of the disabilities are visible and some are invisible. The special needs of persons with disabilities are divergent. eg access to the classroom may be one of the biggest challenges for persons with loco-motor disabilities but they do not require any modification in pedagogy, whereas modification in pedagogy is required for a person with hearing and visual disabilities.

Section 16 of the RPwD Act 2016 recommends that all education institutions should provide inclusive education to students with disabilities and provide them reasonable accommodation according to their requirements, ensuring that the education to persons who are blind or deaf or both is imparted in the most appropriate language and modes and means of communication, detect specific learning disabilities in children at the earliest and take suitable pedagogical and other measures to overcome them.

Section 32 of the RPwD Act 2016 creates a mandatory obligation for all government higher educational institutions to reserve at least 5% of seats for "persons with benchmark disabilities". It also provides an upper age relaxation of five years for admission in institutions of higher education to persons with benchmark disabilities.

1.6 National Education Policy (NEP), 2020

National Education Policy 2020 emphasizes Education for the disadvantaged which includes Socio-Economically Disadvantaged Groups (SEDGs) broadly categorized based on gender identities, sociocultural identities, geographical identities, disabilities (including learning disabilities), and socioeconomic conditions. Education is a great leveler and is the best tool for achieving economic and social mobility, inclusion, and equality for becoming a constructive and productive citizen of the country.

NEP, 2020 recommends Quality Universities and Colleges, a New and Forward-looking Vision for India's Higher Education System suggesting increased access, equity, and inclusion through a range of measures, Greater opportunities for outstanding public education,Scholarships by private/philanthropic universities for disadvantaged and underprivileged students, Extensive use of Online education, and Open Distance Learning (ODL) systems, Ensuring all infrastructure and learning materials accessible and available to learners with disabilities. It also emphasized that all communities and educational institutions - schools, colleges, universities, and public libraries be strengthened and modernized to cater to the needs and interests of all students, including students with disabilities.

1.7 National Higher Education Qualifications Framework (NHEQF), 2022

The draft of the National Higher Education Qualifications Framework (NHEQF) has great implications for the structure of higher education in India. It is a move towards multidisciplinary university education also offering instruction in Indian languages. It also aims to revamp the curriculum, assessment, and support for enriched student experiences. Qualifications are formal 'awards' such as a certificate, diploma, or degree. Qualifications are awarded by a competent authority such as a college or university in recognition of the attainment by students of the expected learning outcomes on the successful completion of a particular programme of study. They are awarded after an assessment and evaluation of learning levels conducted by a competent body that determines the achievement by students of the expected learning outcomes to given standards.

1.8 Objectives:

Keeping in view, the following are the broad objectives of the guideline for Credit Based Course on Pedagogical Aspects for Teaching Divyangjan:

- To provide an objective guideline for credit-based courses to facilitate suitable physical, psychological, social, and specific needs of students with disabilities in highereducation.
- To provide flexibility in the selection of core, elective, and skill-based courses to students with disabilities to bring them to par with their peer group.
- To provide guidelines for curriculum transaction in an accessible manner and format so that students with disabilities could learn as per their needs and abilities.
- To introduce recent technology and pedagogy for enhancing accessibility of students with disabilities in Higher Education Institutions.
- To provide Guidelines for evaluating students with diverse learning needs at higher educational institutions.

Chapter 2

Pedagogy for Students with Disabilities

This chapter discusses pedagogy that consists of various components for teaching and learning with students with disabilities and specific learning disabilities. Each component is equally important for the teaching and learning of students with disabilities. These components are supplementary and complimentary to each other.

2.1 Learning Style

No two students are exactly alike in their learning styles. Every student including students withdisabilities has their preferred way of learning which needs to be kept in mind while teaching. Theories of learning have evolved different learning styles depending upon individual interests, environment, and abilities. Few theories on learning style concentrate on the sensory pathways while other theories focus on the physical environment. Social interaction also contributes to learning. It is important to realize that the way someone learnsis not an indicator of intelligence. Two people of the same level of intelligence may prefer learning using two different styles of learning. However, there is no indication that one learning style is better than other. But it is also true that certain teaching methods and modalities facilitate certain learning styles. Therefore, to teach students with disabilities in different levels of education in general and higher education in particular, it is necessary to understand different learning styles and customize the teaching to meet the needsof all of the students.

Highlighting some of the characteristics of learning styles and focusing on the understanding of individual differences as well as the preferences of the student concerned can play an important role in learning. The teacher's choice of lectures, activities, projects and assignments has a significant impact on the student's success. There are different types of learning styles. Teachers have to adapt pedagogy to suit different types of learners in an inclusive setup.

Some of the important learning styles are given below:

Visual Learning Style: Those with a visual learning style learn by observing and seeing. Theselearners prefer learning by looking at or observing pictures, diagrams, and videos, and watching demonstrations. Print learners are also one of the categories of visual learning styles.

Auditory Learning style: Those with an auditory learning style learn by sense of hearing. They learn better when something is explained to them by spoken words.

Tactile Learning style: Those with a tactile learning style, learn best by touching objects. Theybenefit from participating in hands-on activities. Tactile learners remember what they did and how they did it; they do not necessarily remember what they saw others do or what they heard.

Kinesthetic learning style: Those with a kinesthetic learning style learn by taking an activepart in learning activities. Motion is an important aspect of the kinesthetic learning style.

2.2 Learning Support

Learning support is an important component of pedagogy. It includes providing opportunities for students with disabilities to complete their learning with reasonable accommodation and additional support. To provide reasonable accommodation and additional support, stakeholders including teachers should be aware of the needs of persons with disabilities. Therefore, orientation programs along with the following steps are included:

- Availability of a variety of courses.
- Providing opportunities to do work-based learning or apprenticeship.
- Providing 'discrete provision' to meet the individual needs of students and is delivered ina more supported environment. This may include a higher number of staff and student ratio than mainstream provision.
- Providing career counseling and arrangements of placement.
- Providing extra financial support from different agencies- Central and state government- Concessions and facilities, scholarships, etc.
- Providing learning opportunities from home- e-learning and distance learning- when difficult to go to a higher education institution.
- Providing residential training facilities
- The specific time slot may be given during the orientation programs of higher education institutions and academic staff colleges for enlightening the faculty members towards engaging with Divyangjan and Specific Learning Disabilities.
- A video presentation may be given to the non- Divyangjan and non-Specific Learning Disabilities students on the required behavioural patterns while socializing with Divyangjan and Specific Learning Disabilities.

2.3 Assistive Devices Support

The assistive devices are one of the basic requirements to support the pedagogical aspect for learning students with disabilities. These assistive devices support mostly depends on the needof the individual as per the type of disability. Therefore, it may be referred as the disability need for specific assistive devices to support a pedagogical aspect of teaching students with disabilities including learning specific learning disabilities. These specific disability needs as listed belowin each category of disability provides a generic understanding of diverse needs for various type of students with disabilities as per the RPwD Act, 2016, and accordingly, support of assistive devices may be provided. Some examples of specific support that can be given for different disabilities are as follows:

Physical Disability

- Support in motor and/or fine-motor functioning, locomotor, and non-locomotor functioning.
- Assistance in setting, mobility, transfers, and ambulation.
- Support to manipulate objects, turn pages, write with a pen or pencil, type on akeyboard, and/or retrieve study material.

- Preferential seating to participate in ongoing activities
- Assistance in the use of infrastructure or ICT.

Acid Attack Survivors

- Support in speech and communication
- Support in hand manipulations.
- Support in visual acuity hence would have additional needs as applicable to vision disabilities.
- Preferential seating to participate in ongoing activities
- Assistance in the use of infrastructure or ICT.

Cerebral Palsy

- Assistance with sitting, mobility, transfers, and ambulation.
- Support to manipulate objects, turn pages, write with a pen or pencil, type on a keyboard, and/or retrieve study material.
- Preferential or adapted seating to participate in ongoing activities.
- Support in self-care and daily living skills.
- Specific seating furniture to assist in pain relief and postural control.
- Support in speech and communication.
- Assistance in the use of infrastructure or ICT.

Leprosy Cured Persons

- Support to manipulate objects, turn pages, and write with a pen or pencil, type on a keyboard. And /or retrieve study materials
- Support to meet the limitations in visual acuity.
- Support to meet the limitations in mobility, speech, and communication.
- Preferential seating to participate in ongoing activities
- Assistance in the use of infrastructure or ICT.

Short Stature/Dwarfism

- Support with seating and mobility.
- Support related to associate vision, physical, hearing, and speech disabilities.
- Preferential seating to participate in ongoing teaching-learning activities
- Assistance in the use of infrastructure or ICT.

Muscular Dystrophy

- Assistance with sitting, mobility, transfers, and ambulation.
- Support to overcome the limitations in speech and communication.

- Support to overcome the difficulty in hand manipulations.
- Assistance in the use of infrastructure or ICT.
- Preferential seating to participate in ongoing activities.

Visual Disabilities (Blindness and Low Vision)

- Access information in a variety of ways: braille, audio, enlarged print, digital formats, screen reading software, or other tactile and sensory systems
- Assistance with orientation and mobility.
- Preferential seating to participate in ongoing activities
- Support in concept development.
- Assistance in the use of infrastructure or ICT.

Hearing Disabilities (Deaf and Hard of Hearing)

- Support in speech and communication.
- Assistance in understanding verbal information/directions e.g. difficulty to hearsounds like a class bell, announcements, etc.
- Preferential seating to participate in teaching-learning activities
- Use of devices such as hearing aids and cochlear implants.
- Assistance in the use of infrastructure or ICT.

Speech & Language Disability

- Support in speech and communication.
- Assistance in the use of infrastructure or ICT.
- Preferential seating to participate in teaching-learning activities

Intellectual Disability

- Support in speech, communication, and social skills.
- Support in cognitive functioning (decision-making, reasoning, problem-solving, etc.)
- Assistance with seating and mobility.
- Support in hand manipulations.
- Support to understand information.
- Assistance in the use of infrastructure or ICT.
- Preferential seating to participate in ongoing activities.

Specific Learning Disability

- Support in speech, communication, and social skills.
- Support to comprehend, speak, read, write, spell or do mathematical calculations.
- Assistance in understanding verbal and written information.

Autism Spectrum Disorder

- Support in speech, communication, and social skills.
- Preferential seating to participate in teaching-learning activities.
- Support in cognitive functioning (reasoning, problem-solving, etc.)
- Assistance in the use of infrastructure or ICT.

Mental Illness

- Support in speech, communication, and social skills.
- Assistance in academic activities due to difficulties in concentration, memory, distractibility, impulsiveness, irritability, fear, anxiety, etc.
- Support in cognitive functioning (reasoning, problem-solving, etc.) due to disorders of Thinking, Mood, Perception, Orientation, and Memory that grossly impairs judgment, behavior, capacity to recognize reality, or ability to meet ordinary demands of life.
- Preferential seating to participate in teaching-learning activities.
- Assistance in the use of infrastructure or ICT.

Chronic Neurological Condition – Multiple Sclerosis

- Support in motor and/or fine-motor functioning, locomotor, and non-locomotor functioning.
- Assistance with sitting and mobility.
- Support in hand-functioning to manipulate objects, turn pages, write with a pen or pencil, type on a keyboard, and/or retrieve study material.
- Preferential seating to participate in teaching-learning activities
- Assistance in the use of infrastructure or ICT.

Chronic Neurological Condition – Parkinson's disease

- Support in motor and/or fine-motor functioning, locomotor, and non-locomotor functioning.
- Assistance for sitting and mobility.
- Support in hand-functioning to manipulate objects, turn pages, write with a pen or pencil, type on a keyboard, and/or retrieve study material.
- Preferential seating to participate in teaching-learning activities
- Assistance in the use of infrastructure or ICT.

Blood Disorder – Sickle Cell Disease

- Support in motor and/or fine motor functioning.
- Assistance with seating and mobility.
- Support to overcome limitations in visual acuity.
- Support in hand-functioning to manipulate objects, turn pages, write with a pen or pencil, type on a keyboard, and/or retrieve study material.

- Preferential seating to participate in ongoing activities
- Assistance in the use of infrastructure or ICT.

Blood Disorder – Thalassemia

- Support in motor and/or fine motor functioning.
- Preferential seating to participate in ongoing activities
- Assistance in the use of infrastructure or ICT.

Blood Disorder – Haemophilia

- Support in motor and/or fine motor functioning.
- Preferential seating to participate in teaching-learning activities
- Assistance in the use of infrastructure or ICT.

Multiple Disabilities

- Support in speech, communication, and social skills.
- Support in cognitive functioning (reasoning, problem-solving, etc.)
- Specific seating to assist in pain relief and postural control.
- Assistance with seating and mobility.
- Support in motor and/or fine-motor functioning, locomotor, and non-locomotor functioning.
- Assistance in setting, mobility, transfers, and ambulation.
- Support to understand information.
- Assistance in the use of infrastructure or ICT.
- Preferential seating to participate in teaching-learning activities.

2.4 Curriculum Design and Development

Pedagogical aspects are very much related to curriculum design and development. Therefore, while designing and developing programmes/courses, it must consider the support provisions in curricular aspects as given below.

- Curriculum flexibility with a choice of subjects (both theory & practical).
- Planning for reduced course load, subject waiver, or subject substitutions.
- Offering plus-curriculum or expanded-core curriculum subjects.
- Flexibility in course schedules and academic calendar.
- Flexibility in the pace of the course content to allow for multiple speeds for learners.
- Flexibility in attendance requirements.
- Specify overall learning goals and specific learning objectives relevant to each diversity.
- Ensuring learning objectives cover cognitive, affective, and psychomotor domains.
- Offering multiple means of instruction to address a range of learning styles.

- Suggesting multiple options for students to demonstrate learning (e.g. assignments that are writing-based, problem-based, etc.)
- Offering a variety of pedagogical choices in each discipline for diverse learning styles and functional needs (e.g. lecture, team-based learning, problem-based learning, Socratic Method, simulations, role-play, debate, service learning, etc.)
- Developing clear rubrics and grading criteria.
- Flexibility in good quality assessment and evaluation methods.
- Availability of syllabus in various accessible formats as per the need of the student
- (Digital copy, hard copy, braille, large-print, images with verbal descriptions, appropriate color scheme, etc.)
- Include a list of reference material, reading material, and textbooks that are available in accessible formats (e.g. visual media with subtitles, digital material compatible with screen readers, etc.)
- Include a clear statement of how it addresses issues of diversity, inclusion, and overall engagement.
- Developing a checklist for resources or accommodations that students may need to maximize their learning (both offline and online classroom).

2.5 Accessibility and Flexibility Support

For each category of disability, accessibility support includes measures for

- Offering course waivers or substitutions or option of reduced course load.
- Creating a universally accessible environment at campus & its various facilitiesranging from administrative to academic, mobility to residential facilities.
- Flexibility with attendance, timetable/schedule, etc.
- Allowing the use of assistive aids and technology.
- Providing conveniently located parking.
- Providing an opportunity to reschedule classes to an accessible location.
- Allowing service animals in facilities.
- Providing priority registration facility.
- Providing advance notice of class schedule and/or room changes.
- Familiarizing the student with the layout of the campus, classroom, laboratory & all Facilities noting the closest exits and locating emergency equipment, etc.
- Facilitating raised line campus maps and tactile models of graphic materials.
- Offering advance notice of class schedule and/or room changes.
- Releasing results and documents in accessible formats like large-print, braille, a digital format supported by technology, etc.
- Providing assistive lab equipment e.g. talking calculators, light probes, tactile timers, etc.

- Releasing results and documents in accessible formats like large-print, braille, a digital format supported by technology, etc.
- Ensuring accessible websites, social media, and online materials/tools with Web Content Accessibility Guidelines (WCAG) compliance.
- Establishing diversity-friendly communication benchmarks.
- Safety, privacy, and confidentiality measures.
- Assigning teaching assistants.
- Measures to showcase access, enrolment, retention, participation, and achievement.
- Formation of alliance clubs etc.

Specific considerations for Visual Disabilities (Blindness & Low-Vision)

- Providing academic support through Plus-Curricular (Expanded Core-Curriculum) Activities
- Braille Reading & Braille Writing
- Orientation & Mobility
- Independent Living Skills
- Sensory Training –Efficiency skills to use hearing/touch/smell/taste, and optical devices.
- Use of mathematical devices such as Taylor's Frame & Abacus
- Compensational skills are necessary for accessing core curriculum like concept development, organization & study skills, tactile graphics, audio material, etc.
- Social Interaction Skills
- Recreation and Leisure Skills
- Career Education
- Assistive Technology
- Self Determination skills like choice-making, decision-making, problem-solving, personal advocacy, goal-setting, conflict resolution, etc.

Specific considerations for Hearing Disabilities (Deaf & Hard of Hearing) & Speech and Language Disability

- Making sign language interpreters available.
- Providing visual alternatives for sound-based information like a class bell or verbal announcements.
- Providing academic support through Plus-Curricular (Expanded Core-Curriculum) activities:
  - Audiological Intervention
  - Career Education
  - Communication orientation (Oral/Auditory-Oral; Verbal Uni-Sensory; Sign Language; Total communication)

- Functional Skills like study and organization, concept development, cultural awareness, etc.
- Self-Determination and Advocacy
- Social-Emotional Skills
- Using interpreters and translators

Specific considerations for Intellectual Disability, Specific Learning Disability, Autism Spectrum Disorder, Mental Illness, Multiple Disabilities, and High-SupportNeeds:

- Providing Transition support from school to college or graduation-to-post graduationetc
- Providing Scaffolding or step-by-step guidelines for each administrative aspect.
- Offering highly structured instructions or demonstrations to be presented in more than one way.
- Providing academic support through Plus-Curricular (Expanded Core-Curriculum) activities, such as
  - Social Interaction Skills
  - Recreation and Leisure Skills
  - Career Education
  - Self Determination skills like choice-making, decision-making, problem-solving, personal advocacy, goal-setting, conflict resolution, etc.

2.6 Teaching and Learning Support

Provision of support at all processes linked to learning and skill development includes:

- Student Enrolment and Profile
- Catering to Student Diversity
- Teaching-Learning Process
- Teacher Profile and Quality
- Evaluation Process and Reforms
- Student Performance and Learning Outcomes
- Student Satisfaction Survey
- Getting along with the Theory Curriculum
- Getting along with Practical curriculum
- Availability of Accessible Learning Resources
- Assignments, Projects & Course Works
- Participating in learning programs of other Departments
- Participating in Campus Life Activities
- Participating in Competitions and Events
- Participating in Excursions and Tours

- Considerations during Holidays
- Library & Reading Resources
- Digital Accessibility

Examples of support for Physical Disability

- Use of note-takers and assistive technology
- Provide digital copies of the text (along with a complete list of accessible reference documents)
- Ensuring all off-desk activities are physically accessible or providi n g alternate assignment options.
- Including the students while forming study/ work groups.
- Giving extra time for assignments/presentations
- Modification in seating.
- Permission to audio/video record lectures
- Permission to briefly leave or move about during class
- Giving multiple options to demonstrate learning (e.g. assignments that are writing-based, problem-based, etc.)

Examples of support for Visual Disabilities (Blindness & Low-Vision)

- Allowing the student to determine the ideal sitting location to see, hear and if possible, touch the presented material.
- Assisting the student in labeling lab materials so that they are easily identifiable.
- Verbal description of class activity, such as when a show of hands is requested, statinghow many hands were raised.
- Voice recorders, computers, slates, styluses for note-taking

Examples of support for Hearing Disabilities (Deaf & Hard of Hearing)

- Seating allows a clear view of the instructor, interpreter, and board.
- Visual aids whenever possible, including captioned videos
- Access to the word processor, and use of an interpreter for directions.
- Supplement with written instructions, assignments, and directions.
- Providing unfamiliar vocabulary in written form, on the board, or in the handout.

Examples of support for Speech & Language Disability

- Permit time to speak without unsolicited aid in filling the gaps in their speech.
- Modification in assignments such as a one-to-one presentation or use of the computer with voice synthesizers.
- Alternative assignments for an oral class report
- Use of assistive devices and alternative communication methods

Examples of support for Intellectual Disability, Specific Learning Disability &Autism Spectrum Disorder

- Allow students to focus on parts of a topic /project; rather than the entire concept.
- Word processor with spell-check and/or voice output to provide auditory feedback
- Transition support during time-table
- Allow for choice in assignments
- Provide breaks during classes (if needed)

Examples of support for Mental Illness

- Preferential seating arrangement (near a door or at the back of the classroom etc)
- Assistance with time management and study skills
- Pre-arranged or frequent breaks
- Personal and private feedback

Examples of support for Chronic Neurological Conditions and Blood Disorders

- Allow frequent breaks to go to drink water, washroom, and medical room/take medicineduring class.
- Allow occasional rest from curricular activities.
- Providing recorded lectures/course material
- Extreme care for hygiene and cleanliness

Examples of support for Multiple Disabilities and High Support Needs

- Scaffolding or step-by-step guidelines for each task/activity.
- Assistance in performing classroom and personal care activities.
- Support in classroom mobility and communication
- Sensitivity for challenges in concentration, distractibility, time management, cognitive abilities, social skills, etc.

Examples of support for Gender needs and Transgender Persons with Disability

- Gender-friendly classroom environment and transactions
- Develop positive self-concept and self-esteem among students.

2.7 Assessment, Examination, and Evaluation

Provision of specific need support at all academic procedures about continuous assessment and examination is given below:

- Preparation for examinations
- Availing additional coaching & training for competitive examinations
- Continuous Support for examination and evaluation

- Appearing examinations
- Extra time for examination as per guidelines issued by D/o EPwD
- Evaluation and access to results & related procedures of re-evaluation, re-totaling, etc.

Examples of support for Physical Disability

- Alternate test formats such as the use of readers, written exams, etc.
- Use of scribe or speech-to-text software to record answers to an exam
- Alternate test locations
- Use of computers/ aids/ devices during exams etc.

Examples of support for Visual Disabilities (Blindness & Low-Vision)

- Provision of braille/large-print question paper or alternate test formats such as audio, use of readers, etc.
- Use of computer or assistive technology

Examples of support for Hearing Disabilities (Deaf & Hard of Hearing) and Speech & Language Disability

- Substitute oral exams/ viva etc with written or any other alternative modality.
- Providing an alternate non-verbal way for exam announcements.
- Allow the use of hearing aids, cochlear implants, and communication devices.

Examples of support for Intellectual Disability, Specific Learning Disability & Autism Spectrum Disorder, Multiple Disabilities, and High Support Needs

- Alternate modalities for examination and evaluation; or alternate/adapted question papers
- Quiet, distraction-free examination area
- Breaks during examination
- Scaffolding or step-by-step guidelines for examination.
- Use of Scribes

Examples of support for Mental Illness

- On-demand examinations
- Extended time for exams or breaks during exams.
- Quiet, distraction-free examination area

Examples of support for Chronic Neurological Conditions and Blood Disorders

- Extended time for exams
- Use of scribes
- Exam modifications e.g. shorter exam duration, on-demand exams, etc.
- Allow breaks during exams for washroom, taking medication, moving around, etc.

Chapter 3

Disability Specific Pedagogical Support

The support in pedagogical aspects in higher education varies to a certain extent with categories of disabilities. Remedial classes should be conducted by HEIs to support persons with disabilities to cope with their studies. All the issues of teaching-learning aspects shall be resolved timely. Remedial classes shall be provided to persons with disabilities in formats and methods based on their specific needs. However, faculty members may also voluntarily come forward to provide remedial classes. The HEIs shall make a record of the number of persons with learning disabilities who opted for the remedial classes after the issuance of present guidelines. (Ref: UGC scheme for funding remedial classes may be referred to).

The teacher may consider disability-specific pedagogical aspects as per the below guidelines.

3.1 Visual Disability (Blindness and Low Vision)

Curriculum Adaptation: Curriculum adaptation is an ongoing process. For Students with visual disabilities, the curriculum should be flexible to modify from time to time, and designed according to the student's interests and needs. The content, language, and teaching method maybe adapted through duplication, modification, substitution, or omission as per the need of students with visual disabilities. The content should be flexible and accessible and textbooks should be recorded for people with visual disabilities. In addition, teachers are required to teach different subjects that are Science, Social Science, Mathematics, and Languages using innovative methods, and techniques and teaching learning material to students with visual disabilities.

- **Teaching Science:** It includes the development of a scientific attitude by applying innovative skills for teaching Science, developing competencies for organizing and facilitating laboratory work, and designing people-centered strategies for evaluating learner's achievement in Science using several scientific approaches like constructivist approach, direct experiences, inductive and deductive approach, direct experience approach, concept mapping, computer-assisted learning, programmed instructions, cooperative teaching, and differentiated approach.
- **Teaching Mathematics:** It includes the development of a scientific attitude applying innovative skills for teaching Mathematics, developing and designing various evaluative methods for math learning, understanding and applying various strategies for learning mathematics including the Concept Attainment Model, concept Formation, analytic and synthetic problem-solving model, Drill-Work, Brainstorming and Computer Assistive Instruction, Situational contextual learning and activity-based learning.
- **Teaching Social Science:** It includes developing competencies knowledge and understanding events and phenomena in society through several approaches and pedagogy of teaching Social Science like programmed learning, concept mapping,

adapted tactile maps, diagrams, and the globe, Field Trips, Dramatization, Narration, Explanation, Storytelling, role play, Tactile map reading, developing reading and writing skills for low vision.

- **Teaching Language:** It includes developing competencies for reading and writing required for all languages using approaches like task-based approach, eclectic approach, and constructivist approaches. Also, communicative language teaching, developing language proficiency, interpersonal communication skills, cognitive academic language proficiency, etc are important various methods for learning Prose, Poetry, Drama, Grammar, and vocabulary including translation method, structural method, situational method, and direct method.

Expanded Core Curriculum:

Assistive Technology: Assistive technology includes assistive and adaptive tools as well as instructional services. It enhances communication, access, and learning. It can include electronic equipment such as switches, mobile devices, and portable note-takers; computer access such as magnification software, screen readers, and keyboarding; and low-tech devicessuch as an abacus, and a Brailler.

Career Education: It provides students with visual disabilities of all ages the opportunity to learn through hands-on experiences. They also learn work-related skills such as assuming responsibility, punctuality and staying on task. Career education provides opportunities for students with visual impairments to explore and discover strengths and interests and plan for the transition to adult life.

Compensatory Skills: Compensatory skills include skills necessary for accessing the core curriculum including concept development; communication modes; organization and study skills; access to print materials; and the use of Braille / Nemeth, tactile graphics, object and/or tactile symbols, and audio materials.

Orientation and Mobility (O & M): O & M instruction enables students of all ages and motor abilities to be oriented to their surroundings and to move as independently and safely as possible. Students learn about themselves and their environments, including home, school, and community. Travel in the community, and use of public transportation, having O & M skills enables students to acquire independence.

Recreation and Leisure: Recreation and leisure skills provide opportunities to explore, experience, and choose physical and leisure-time activities, both organized and individual. Some instructions and provisions should be available at HEIs on the development of life-long skills which may include art, and craft, gyms, games & sports, yoga, and other enlightening activities at the university/college campus.

Classroom Transaction/role of the teacher:

a) Peer-to-peer collaborative learning.

b) Hands on-Activity based learning.

c) Multi-level teaching.

d) Experiential learning.

e) Encouraging children to participate in classroom activities.

f) Different teaching strategies used in the classroom.

g) Inquiry-based learning.

h) Problem-solving.

3.2 Hearing Disability (Deaf and Hard of Hearing)

Communication is the major challenge in the classroom for students with hearing impairment. Hearing impairment can be broadly classified as Deaf and Hard of Hearing. A Deaf person cannot hear anything while a person who is hard of hearing has some residual hearing. The severity of hearing loss in a person can vary from mild to profound. Hearing loss can also be congenital, present since birth, or acquired later in life. With the advancement in technology, it is possible to rehabilitate. Rehabilitation options are available for all persons with hearing loss irrespective of the severity, type, and age of acquisition of hearing loss. A majority of persons with hearing disabilities are rehabilitated with the help of hearing devices. The most commonly recommended hearing devices are hearing aids or cochlear implants. The benefit from the hearing device will be affected by many factors including type and severity of hearing loss, age of acquisition of hearing loss, age at which the student started using hearing devices, the type of hearing devices used by the student, and therapy attended with the hearing devices.

The adaptations required while teaching students with hearing disabilities will depend on the hearing ability of students with the devices and their speech-language abilities. For students who have had hearing loss since birth or early childhood, the communication mode used will depend on the rehabilitation program attended to them. A student can be a Sign Language user or a verbal. A verbal student will use spoken language for communication but depending on the benefit of hearing devices, he may be a visual learner, or auditory learner or may depend on both audition and vision for learning. So, the adaptation required in pedagogy will vary accordingly. A universal design of learning that minimizes barriers and maximizes learning should be used. A student-centered approach should be used to minimize barriers and maximize learning.

Following are some of the recommendations to be made in pedagogy while teaching students with hearing impairment:

- Repetition: Repetition will help students with hearing impairment in understanding what they missed during the first presentation
- Rephrase: A student with hearing impairment may not hear some of the sounds/words. So, rephrasing using a different word can help such students in understanding what they missed during the first presentation
- Articulate/pronounce clearly: Speaking slowly with clear pronunciation/articulation will facilitate understanding for students with hearing impairment.
- Avoid speaking while facing background: Many students with hearing impairment depend on speech reading and visual clues to understand what is spoken.
- Provide visual clues: Face the students with adequate light on the face while giving a lecture. Use facial expressions, gestures, and body language to convey the message. Let the teaching be animated, wherever possible.

- Provide written material to supplement teaching: Providing written resource material will help them in understanding the concepts they could not understand due to their hearing problem.
- Provide recorded lectures or allow students to record lectures: Students can be given audio/video recorded lectures so that they can replay to understand the concepts they could not hear clearly. Alternatively, students can be permitted to record the lecture while attending the class.
- Use visual aids: While visual aids help all students in learning and remembering, it is an added advantage for students with hearing impairment. So use visual aids wherever possible.
- Write down phrases: Key phrases, new phrases, and difficult phrases should be written on the board so that students can understand better.
- Use a Multimodal way of teaching: Use PowerPoint presentations/slide shows/ or videos while teaching
- Use of close captioning for videos: Use videos with close captioning to supplement the information heard
- Use interactive whiteboards: Use interactive whiteboards wherever possible as it will help the students in replaying the lecture to understand the concepts
- Introduce terminology before teaching a new topic: Students with hearing impairment may have a limited vocabulary. So, the new terms should be introduced before the initiation of each topic.
- Provide a reading list well before starting a new topic: The topic of the lecture should be announced earlier and a reading list should be provided so that students can come prepared for the lecture.
- Use many activities for teaching each concept
- Control discussions to ensure that only one person speaks at a time
- Have sign language interpreters
- Have a counselling cell
- Have a resource room
- Have remedial classes
- Orient teaching and non-teaching staff regarding the needs of students with hearing impairment
- Language exemption may be considered

Other tips for helping students with hearing impairment include the following:

- Preferential seating – facing the teacher/speaker, away from background noise,
- Use of a microphone while teaching
- Use of amplification systems in the classroom

- Use of FM device
- Reducing background noise
- Assigning peer partners, buddy system

3.3 Intellectual Disability

While planning to teaching-learning of students with intellectual disabilities, the teacher must take their common characteristics into consideration which are described below:

The students with intellectual disabilities have below-average intelligence. Therefore, they have limited/ below average ability to understand. The extent of intellectual disability varying in degrees impacts the learning of the student accordingly. They have limited memory so experiential learning is better retained than teaching by lecture methods. They need repeated instruction for understanding simple things. They have difficulty understanding cause-effect relationships. It means they act without knowing the consequences. They are slow in understanding and executing instructions, more so with multiple instructions. They take more time to learn and respond and require more reaction time. Whatever they can learn, they learn better when a concept is taught with concrete examples before moving to abstractions.

They have difficulty in the generalisation of a concept. They are not able to apply a concept learned in one environment to another environment. Their learning ability is below their age-based class level due to their limited cognitive ability. There is a mismatch of the chronological age of students with intellectual disabilities to other students in the classroom. They can have difficulty in problem-solving, and understanding cues, and need clear instruction. Their attention span is limited, so they get distracted easily.

Students with intellectual disabilities may have poor gross and fine motor ability and poor eye-hand coordination. Depending upon the degree of intellectual capacity, students with intellectual disabilities have varying degrees of speech and language disorders. They may have a mild delay of speech and language development to no speech and language development at all. They may have difficulty in expressing themselves fluently, by aligning their thought process to speech; may grope for words while talking, and need time to express themselves. Some may have additional disabilities such as cerebral palsy, autism, and neurological conditions such as epilepsy.

Not every lecturer or teacher is aware that students with intellectual disabilities may study through inclusion in higher education. They are not aware of the consequences of intellectual disability and the support students with a disability need in practice. Therefore following strategy must be adopted by the higher education institution.

- A good start is already half a victory.
- As per the understanding level of the student, admission should be given in a suitable course. Admission for a course may be given as per his/her mental age and not as per chronological age.
- We should work on creating employment opportunities for students with intellectual disabilities and making the labor market more accessible.

- Students with intellectual disabilities might not access the postsecondary education system in a typical manner. They require alternative diplomas with significant planning and a strong system of educational support keeping in view employment opportunities.
- It is established from the studies that participating in workshops leads to better results and creates attitudes toward reading books and other sources of information. The course should be selected based on direct activities and practical orientation. It may be an alternative equivalent diploma course. The course should be developed in such a way that it is accessible for students with intellectual disabilities and it makes it possible for them toattend higher education.
- Teaching should be in simple language.
- The teacher should speak slowly and involve parents to carry out classroom teaching athome and natural environment.
- Lessons must be simplified and move from concrete to abstract.
- Note-takers may be provided to the students in case of writing problems due to poor fine motor coordination.
- Adequate time should be given to reply.
- Apply a combination of the strategies as per additional disabilities.
- We can make arrangements for mentoring and coaching fellow students.
- Teachers should be provided necessary skills and knowledge about students with intellectual disabilities.
- Higher education teachers may be provided with the necessary information, knowledge, and skills regarding students with intellectual disabilities so that they can modify their teaching and learning materials to the specific needs of the students.
- A specific training programme for higher education teachers may be developed and conducted.
- For poor motor coordination, students may require suitable customized aid and AAC for communication between students and faculty. If required encourage the use of augmentative and alternative communication systems.
- An inclusive learning environment can be built so that positive attitudes toward students with intellectual disabilities can be created.
- Repeated instruction with a multi-sensory approach should be applied to teach a concept.
- Oral instructions are to be given at the time of the examination apart from writing on the boards and repeated clearly after calling for the attention of the students.

Autism Spectrum Disorder

Autism Spectrum Disorder is a neuro-developmental condition typically appearing in the first three years of life that significantly affects a person's ability to communicate, understand relationships and relate to others, and is frequently associated with unusual or stereotypical rituals or behaviors. The challenges on pedagogical aspects of teaching students with Autism Spectrum Disorder include

- **Attention problem:** Students with autism spectrum disorder are hyperactive or inattentive. Due to poor eye contact, they do not like to watch the face of their teachers and other class fellows in the classroom. They have also a problem with joint attention, so they do not like to participate in group activities.
- **Communication problem:** They have a problem with speech, language, and communication. They have difficulty communicating with their teachers and class fellows. They have a problem following instructions given by teachers and understanding the views of others. Their speech output is limited or there is no speech at all. Even though they speak, they repeat what they hear from teachers and other classes' fellows. They have unusual prosody in their speech. Even they restrict their body language, gestures, and facial expressions to express themselves. Sometimes the one-sided conversation about a favourite subject that others are not interested in is seen.
- **Socialization problem:** Most autistic students have a problem with socialization resulting in restrictions in participation in group activities like participating in sports events. They may not like to mix with other students, inside and outside the classrooms. They do not build relationships easily with people older or younger than them. There is a limitation in social conversation and sharing experiences with others.
- **Behavior problem:** They have specific and restricted interests in objects and activities. They show repetitive activities such as particular body movements, rotating or spinning objects, playing with objects only in one particular way, talking about specific topics, and asking the same questions again and again. They like to watch television, radio, computer, and Internet but with their likes and dislikes. They aregood at following rules and routines.
- **Emotion and interest:** They have difficulty expressing their emotions as well as understanding the emotions of others. They either have an interest in or avoid specific sounds, smells, tastes, or textures. So, they may find some light, sounds, textures, or touch deeply distressful, or may seek certain visual, tactile, oral, or audio stimulation. They seem to get upset easily, for no apparent reason or by slight changes in routine. They may havefocused and intense interests that may seem unusual and information on a specific topic like pre-history, automobiles, space, cricket, etc.
- **Language difficulty:** Even though they have an understanding of language, they have difficulty in understanding abstractions and limited imagination capacity. The semantic, syntactic, and pragmatic aspects of language are affected.
- **Academic:** Due to poor hand-eye and motor coordination, they have difficulty in writing by hand and copying from the blackboard. They may be good at some skills such as music, science, or math, and yet struggle with things that seem obvious, simple, or easy.
- While planning for teaching students with autism spectrum disorders, the following pedagogical aspects must be taken into consideration:
- Lessons must be simplified and move from concrete to abstract Use of concrete language in explaining concepts, especially in the beginning is advised and the use of abstract terms should be avoided.

- Flexibility to pick particular teachers and timing should be allowed as per their likes.
- The course should be framed based on the needs and interests of the student with an autismspectrum disorder. Student-centric designing of the degree should be preferred.
- Choice of choosing different subject combinations in normal and skill or vocational courses may be given.
- It should be open to studying through any mode – regular, distance, online and virtualmodes.
- Learning and examination on demand when a student is ready may be provisioned.
- The use of augmentative and alternative communication may be allowed.
- There should be flexibility to study or change in any national or international institution.
- There should be flexibility to convert credits into degrees and diplomas.
- Provision for a lifelong learning process may be done. The notion of a fixed time foreducation may be removed away with the option of multiple entries and exit points.
- Extra time and assistance to meet their academic targets may be provided.
- Open book examinations, Group examinations even for conventional theory papers, Spoken / Speaking examinations, and on-demand examinations may be considered.

3.4 Multiple Disabilities

The Challenges, Characteristics, and Behaviors of students with multiple disabilities include the following:

They have a combination of two or more disabilities. Hence, the learning characteristic is specific to the student based on the combination of disabilities. Need assistive devices (low-tech/mid-tech/high-tech) for their personal and daily living activities. May use a wheelchair and adapted seats in class. May have low vision aids or if blind, tactile aids. Maybe a hearing aid user and also be using assistive devices for speech/ communication. Prefer to communicate only with their head movements and express their needs only through eye movements. May forget the task learned easily and may need repeated learning opportunities over some time. Perform their regular activities with the support of a person. Good at studies but can have associated conditions and physical deformity. Students with deafblindness may depend on total tactile learning or may use suitable assistive devices or technology to optimally utilize their residual vision/hearing.

While planning for pedagogical aspects such as teaching-learning, the following points must be taken into consideration.

- Simplified lessons from concrete to abstract with ample examples should be done.
- Step-by-step instructions with gradual fading of support as the student learns may be done.
- Audio-visual and tactile experiences to learn and respond may be done.
- Frequent checks for the memory of learned concepts should be taken care of.

- There should be a provision for responding to/participating in class discussions using alternate modes other than speech/writing.
- Enlarged screen display, screen contrast display, screen reader, and touch screenfacilities may be arranged if required.
- Sensor access program to display in the monitor to access the content for learning maybe arranged.
- Model, animation, and video have the features of Multisensory inputs to access the content that may be used which will be easy for them to learn.

3.5 Mental Illness/ Disorder:

In recent times mental illness among students in the higher education system are on the rise and has come to the notice of professionals and the government aiming at providing suitable support. These students require timely support from psychologists and/or psychiatrists to lead a comfortable life. An alert and understanding faculty will be of significant help to these students. Keeping a watch on the student's behavioral changes and moods of the faculty and referring them for appropriate intervention will help these students significantly. Lecturers may support them by choosing the technology and programmes from the pool of available ones for education. If required, this can be done in consultation with professional support, so that the choice is appropriate according to the needs of the students.

Physical disabilities include locomotor disability, leprosy cured persons, cerebral palsy, dwarfism, and Acid attack.

While considering the pedagogical aspects of these disabilities, following accessibility consideration is more important than other pedagogical aspects.

- The classroom should be on the ground floor or easily accessible through elevators bigenough to fit a moving wheelchair or appropriate ramp
- A scribe (writer) may be made available to the individual with cerebral palsy.
- The need for the scribe may be judged on a case-to-case basis with reference to the particular function affected.
- Use of support / adapted/advanced/electronic writing/seating material is allowedon a case-to-case basis with reference to the particular function affected.
- To provide additional time during internal assessment as well as during the term-end examination. This may be allowed for 20 minutes per hour.
- Allotment of exam centers close to their homes having barrier-free access to the building.

3.6 Specific Learning Disability

Students with Specific Learning Disabilities (SLD) don't get the help they need for their studies. They are more likely to struggle with their studies and experience mental health issues, such as stress and anxiety, as a result. Statistics show that students with SLDs have much higher rates of dropout than those without learning difficulties. It's the responsibility of the institution to provide support to SLD students and keep them well-informed about the services that are available to them. Broadly pedagogy for specific learning disabilities in higher education may be classified as;

Curriculum adaptation

- For coursework, students with SLDs may need additional time and extrasupport from their teachers.
- Rewriting instructional materials in a simplified format.
- Providing summaries, graphic organizers, or outlines of instructional materials.
- Color-coding textbooks to highlight key concepts and new vocabulary.
- Audio taping textbook content.
- More than one method would be ideal to teach PWLD
- Utilizing teacher presentation cues (e.g., gestural, visual, or verbal) toemphasize key points and key concepts to be learned.
- Provide hands-on experiences

Reduced Course Loads: Communicate all deadlines, assignments, and expectations well in advance. Ensure ample time between assignments for students to receive feedback. Consider the time required for students to complete assignments, and if required reduce the course work as per the individual needs of SLDs.

Multiple methods of information: Using multiple methods to convey information is one of the best ways to reach as many students as possible and keep them engaged. Make sure all the formats are accessible (for example, using captions, transcripts, or alternative text). It's useful to cover core material through a variety of mediums, for instance, lectures, textbooks, and/or visual presentations.

Audio recording of lectures: Consider allowing students to audio-record lectures, or create audio podcasts of lectures and make them available. While these may be especially helpful for students with disabilities and for students whose first language is not English, they could be useful study aid for everyone.

Managing learning system: Encourage and support different ways for students to interact, with the material and one another through hands-on activities, discussions, ortechnology- / internet-based interactions including clickers, or using a learning management system.

Chapter 4

Accessibility and Pedagogy

4.1 Accessibility of Persons with Disabilities in HEIs:

Accessibility for learning-disabled people in Higher Education means the process of designingcourses and developing a teaching style to meet the needs of people who have various types of learning disabilities due to varying learning styles. There is no single way to teach, people with learning disabilities as they learn in a variety of ways; using different instructional methods will help meet the needs of the greatest number of learners. Inclusive practices in education ensure quality education without discrimination against any learner. It fulfills diverse needs in a responsive and supportive manner. Higher education institutions (HEIs) need to create a common learning platform that is flexible and accessible for all students to learn together including those from varied backgrounds and diverse abilities. Such an inclusive environment benefits not only the learners but also forms a strong foundation of social inclusion and accessible environments as a whole. Thus, it should result in removing barriers by bringing necessary changes to infrastructure, curriculum, teaching-learning process, and all other components needed for equality, equity, quality, and full participation in both academic and social aspects of campus life.

Needless to say, accessibility and inclusion in higher education Institutions (HEI) would need to be propagated for students with disability in general and Specific Learning Disabilities in particular. Broadly accessibility for students with disabilities and specific learning disabilities in higher education may be as follows:

Physical Environmental accessibility broadly includes the following:

Street infrastructure within HEIs campuses: The HEIs campuses must develop street infrastructure with accessible pedestrian pathways that are at least 1800 mm wide for two-way movement. The pathways should be continuous without breaks and have a firm, level, and non-slip surface and be well-lit for use in low-light conditions. Level crossings, traffic calming measures at appropriate junctions, accessible bollards, tactile pathways, appropriate seating heights in street furniture, and a whole range of elements of mobility infrastructure need to adhere to various relevant codes including Harmonized Guidelines & Standards for Universal Accessibility in India, 2021 issued by Ministry of Housing and Urban Affairs, Govt. of India.

There should be accessible seating facilities provided along the street on the campus every 30 meters that don't block the pedestrian access facility. Enhancing walkability and making walkways wheelchair-friendly is highly recommended as a priority for all HEIs. Not only this shall promote higher accessibility, but also advances measures for environmental sustainability. It is therefore important that street and mobility infrastructures are well designed, regularly monitored and maintained, and audited for accessibility to ensure inclusive mobility for all. Where feasible, mobility alternatives such as cycling and related infrastructure such as bike-sharing systems should also be developed on the HEI campus. Similarly,

parking spaces including accessible parking spaces for cars and adapted vehicles should be earmarked near all important buildings expecting students and staff with disabilities.

Accessible Drop off and boarding points should be provided on the campus where users can safely board and de-board the public / HEIs transport options near the facilities, units, or departments. Besides the above, accessible parking provisions for adapted scooters or other mobility devices of persons with disabilities and the creation of reserved car and two-wheeler parking be adopted across all HEIs.

Details of various elements of accessible street infrastructure like a kerb, ramps, street furniture, tactile pathways, etc.

GPS Mapping or Bluetooth beacon-based technologies may be deployed to enhance orientation/ navigation on the campus while an all-centric understanding of the environment is aided by constructing tactile and visual maps and by walking through the environment.

Signage and Wayfinding: HEIs need to strengthen the infrastructure for accessible information through appropriate way-finding systems across the campuses. For better orientation within the campus, accessible signage informative and directional should be provided. Visual and Tactile Maps should be provided to enhance wayfinding within the campus and buildings. Electronic and Digital Signage Systems that emit sound and provide a good colour contrast are also increasingly used to enhance accessibility for the diversity of users. Font type size of text and illumination levels should comply with approved accessibility standards.

Resources, Technology, and other support services accessibility

Learning Aids: The learning process of students with SLDs can be improved drastically with the help of learning aids. For example, students with dyslexia are likely to work better with a laptop as these provide tools such as text-speech software, typing programs, and mind–mapping software for organizing and planning. Much of this software can also be incredibly valuable for other SLDs, such as the use of mind mapping software for those with ADHD. Students with SLDs might also work better with different colours and fonts than other students, so every effort must be put into adapting learning materials where possible for those who require it.

Make the document accessible: Students use assistive technology to adapt information into a usable format for their learning needs.

- **Screen readers:** These are read-aloud information on a computer screen, such as written text, or the description of an image provided through alternative text or Alt Text.
- **Screen enhancement software:** allows users to magnify the computer screen or change the contrast to make the content easier to see. Your syllabus will be one of the first contact points that students have with your class.
- **Providing the document in an accessible format:** one that can be read easily and used by assistive technology such as a screen reader will demonstrate that your course is inclusive.
- **Make the syllabus available electronically** to all students, and update it if there are revisions during the course; this could be done through a learning management system,

such as Blackboard, Web CT, Desire2Learn, Moodle, or Sakai; by email or on the course website.

- **Use e-mail** or the course website to facilitate the submission and return of assignments.

Mobile Apps for Students with specific learning disabilities:

- **Stay Focused:** Stay Focused is a Google Chrome extension that allows students to block time-wasting websites. This software uses task time tracking technology to break tasks into smaller, manageable portions. This can help students avoid social media and other time-wasting sites, boosting productivity.
- **Web Captioner:** Web Captioner provides real-time captioning, making lectures and events accessible to students who struggle to process speech. The captions appear within seconds, and the software is customizable, allowing students to change their language, font, color, background, and text position.
- **Ginger:** Powered by artificial intelligence, Ginger is a free writing assistant that provides context-based corrections in real-time. Ginger is available both as a Google Chrome extension and as a desktop app. The software can help boost students' creativity and increase writing speed.
- **Dyslexia Toolbox:** The Dyslexia Toolbox is a Google Chrome extension that facilitates reading for dyslexic students. The software changes website fonts to Open Dyslexic, a font made for students with dyslexia. It also hides portions of pages to allow users to concentrate on specific passages of text.

1) **Availability of the Resources**: After the need identification, all the required equipment/services need to be made available at all the units (e.g. library, canteen, photocopying services area, labs, resource centers, parking, etc.). It must be ensured that persons with disabilities should not wait or repeatedly demand the service/resources. The lag time should be minimized or zero.

2) **Integration of E-contents:** HEIs shall integrate the various technology-based platforms such as SWAYAM/DIKSHA etc. with teaching-learning considering the diverse needs of the persons with disabilities. Wherever the e-contents have been made available or are being made available, they shall be provided in different formats accessible to all persons with learning disabilities.

3) **Library Facilities:** Library services for persons with learning disabilities should also be given due care at libraries and their needs be attended to as per their requirements. The libraries after admitting students with a learning disability at HEIs must assess the needsof such students and provide the services such as content in 'easy-to-read or 'plain language', enlarged print, audio material, spoken-word collection, audio & video in daisy format to enhance learning and understanding.

4.2 Accessibility of Examination and Evaluation

An accessible examination system contributes to equality, inclusion, participation, and engagement among students which leads to students' optimum learning outcomes, satisfaction, and well-being. Providing an accessible assessment is more of a process of anticipating diverse preferences, needs, and

abilities among students and providing in-built flexibility and anticipatory adjustment. Any modification that is used in the regular classroom that helps the person with a disability, the same should be provided during testing also.

Accessible Assessment and Examination Systems for SLDs:

Students with Specific Learning Disabilities are exempted from writing answers in detail during the examination.

- Consider having multiple methods of student evaluation, such as exams, presentations, papers, etc. There may be more than one appropriate way to meet and measure learning objectives.
- Students with dysgraphia are allowed to use writers during the examination. Allow reader during examination also.
- Extra Time for Assignments and Tests.
- Providing alternatives for handwriting tasks during the examination.
- Provide a separate, distraction-free room for writing tests and/or exams.
- Allow for the use of adaptive technology (for example, screen readers or screen enhancement software such as screen magnification).
- Exams and assessments are generally designed for those without SLDs, whichmeans that those with a learning difficulty may be at a disadvantage.
- To ensure every student is assessed on a level playing field, universitiesmust be flexible with their assessment methods.
- Certain students with SLDs will need more time to complete exams and may require additional assistance in the form of a scribe or a laptop.
- Permitted to use of calculators for mathematics calculation during the examination.
- Give short answer questions
- Modify format (multiple choice, essay true/ false)
- Allow answers to be dictated

Chapter 5

Pedagogy of Choice Based Credit System (CBCS) and Academic Bank of Credits(ABC) for Students with Disabilities in HEIs

The Choice Based Credit System (CBCS) is an educational model that offers students to opt for courses & subjects of their choice - core, elective, open or global electives & skill-based courses. Unlike the traditional marking-based system, the CBCS grading pattern is based on earned credits every semester.

As per National Education Policy 2020, the Academic Bank of Credits (ABC) has been envisaged to facilitate the academic mobility of students with the freedom to study across the Higher Education Institutions in the country with an appropriate "credit transfer" mechanism from one programme to another, leading to attain a Degree/ Diploma/PG-diploma, etc.

Academic Bank of Credits shall deposit credits awarded by registered institutions into students' accounts. The Academic bank credit(s) can only be shared from institutions, not directly from the student. The credits submitted by an authorized institution will be accepted for storage and validation by the ABC.

Accessibility for ABC: For facilitating the Academic Bank of Credits system functional for students with disabilities in HEIs, several provisions can be made.

1. **Credit Accommodations:** For a particular course requirement, the following criteria may be used for assigning credits:
    - Self-study
    - E-learning
    - Lab work
    - Online Accommodations
    - Home Based Training
    - Hands-on-Experiences
    - Project Learning
    - Short-term course
    - Engagement in internship
    - Flexibility in delivery course
2. **Alternative Courses:** Persons with disabilities may be allowed to go for continuing and earning credits by making use of one or more alternate courses at one time.
3. **Modification:** Students with disabilities need multiple modes of representation, action, and expression. Modifications may be done in a transaction, teaching-learning material, and evaluations.

4. **Additional Measures for Evaluations:** In the credit-based system the mode of evaluation may be considered as per the unique need of students with disabilities to earn the credit by using the following.

- Additional Test
- Additional Assignments
- Additional Projects
- Multi-stage evaluation

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