

**INSTITUTE OF SPECIAL EDUCATION**  
**University of the Punjab, Lahore**

**BS Special Education**

**Assistive Technologies for Special Children**

**Course Code: SEBS-358**

**Fifth Semester**  
**(3 Credit Hours)**

**Pre-requisite course requirements/Skills**

<b>Course Code</b>	<b>Course Title</b>
SEBS-133	Differentiated Instructions

**Learning Outcomes**

After the completion this course the learners will be able to:

- 1 A working definition of assistive and emerging technology.
- 2 Strategies for advising students with disabilities transitioning from high school about the assistive technology process in higher education.
- 3 Differentiate key AT categories by function, including high tech and low tech hardware and software.
- 4 Evaluate appropriate pieces of technology according to a student's specific disability and academic needs.

**Contents**

**Unit-1: Introduction**

- 1.1 Introduction and Definition of Assistive Technology
- 1.2 Rationale/needs of Assistive Technology
- 1.3 Trends in Assistive Technology

**Unit-2: Instruction and Assistive Technology**

- 2.2 Instructional delivery formats
- 2.3 Multidisciplinary teams and assistive technology
- 2.4 Planning for individual needs in software and hardware

**Unit-3: Instructional Software**

- 3.1 Computer Assisted Instruction/Computer Managed Instruction

- 3.2 Authoring packages
- 3.3 Hypermedia concepts
- 3.4 Evaluation of software

**Unit-4: Assistive Devices for Visually Impaired**

- 4.1 Assistive technology for Blind
  - 4.1.1 Note Takers
  - 4.1.2 Braille Displayers
  - 4.1.3 Screen Readers
  - 4.1.4 Embossers
  - 4.1.5 GPS
- 4.2 Assistive Technology for Low Vision
  - 4.2.1 Magnifiers
  - 4.2.2 Large Prints

**Unit-5: Assistive Solutions for Hearing Impaired**

- 5.1 Amplification technology
  - 5.1.1 Group Amplification Systems
  - 5.1.2 Individual Hearing Aid System
- 5.2 Alerting Technology
  - 5.2.1 Visual Devices
  - 5.2.2 Vibrating Devices
- 5.3 Communication Technology
  - 5.3.1 Telecommunication Devices
  - 5.3.2 Captioning Devices

**Unit-6: Assistive Solutions for Physically Disabled**

- 6.1 Mobility Aids
  - 6.1.1 Wheel Chairs
  - 6.1.2 Canes
  - 6.1.3 Crutches
  - 6.1.4 Walkers
  - 6.1.5 Belts and vests
- 6.2 Independent Living Aids
  - 6.2.1 Bedroom Aids
  - 6.2.2 Bathroom/Toilet Aids
  - 6.2.3 Kitchen Aids

6.2.4 Dressing Aids

6.2.5 Grooming Aids

**Unit-7: Assistive Technology for Mentally Retarded**

7.1 Independent Living Aids

7.1.1 Bedroom Aids

7.1.2 Bathroom/Toilet Aids

7.1.3 Kitchen Aids

7.1.4 Dressing Aids

7.1.4 Grooming Aids 7.3 Mobility Devices

7.2 Communication devices

**Unit-8: Current assistive technology issues**

8.1 Financing assistive technology

8.2 Assistive technology training

8.3 Family issues dealing with assistive technology

8.4 Inclusion and assistive technology

8.5 Cultural issues and assistive technology

**Teaching-learning Strategies**

*Discussions, Demonstration Method, Simulation Method, Activity Method, Project Method*

**Assignment- Types and Number with calendar**

*Class Presentations, Written Assignment,.*

*01 assignment before mid-term exam and 02 assignments after mid-term exam*

**Assessment and Examinations**

Sr. No.	Elements		Details
1.	Midterm Assessment		It takes place at the mid-point of the semester.
2.	Formative Assessment		It is continuous assessment. It includes: classroom participation, attendance, assignment and presentations, homework, attitude and behavior, hands-on-activities, short tests, quizzes etc.
3.	Final Assessment		It takes place at the end of the semester. It is mostly in the form of a test, but owing to the nature of the course the teacher may assess their students based on term paper, research proposal development, field work and report writing etc.

## **Suggested Readings**

Davies, L.T. (2006). *Meeting the Needs of your Most Able pupils: Design and Technology*.

London: David Fulton.

Rao, V.K. (2005). *Instructional Technology*. New Delhi: APH Publishers.

Lewis, R.B (1993). *Special Education Technology*. California: Brooks

Norton, Pricella (2003). *Teaching with Technology*. Australia: Wadsworth.

Gragary, Church (1992). *The Handbook of Assistive Technology*. London: Chapman & Hall.

Smith, D.D. (1998). *Introduction to Special Education*. Boston: Allyn and Bacon.

Gargiulo, R.M. (2006). *Special Education in Contemporary Society: An Introduction to Exceptionality*. Austria: Thomsan