

INSTITUTE OF SPECIAL EDUCATION
University of the Punjab, Lahore

BS Special Education

Assistive Technologies for Special Children

Course Code: SEBS-300

Fifth Semester
(3 Credit Hours)

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	Weightage	Details
1.	Midterm Assessment	35%	It takes place at the mid-point of the semester.
2.	Formative Assessment	25%	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	40%	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.