

TECHNOLOGY FOR SPECIAL NEEDS EDUCATION

Credit: 3-0-0

Course Description

Education is a basic and universal right. It help one develop understanding and critical outlook of the surrounding and world at large, connect with others, express oneself efficiently and earn livelihood. However, each student has personalized requirements , and there is no one size fit all model for education. This is especially the case for students with special needs. Intervention is needed for both curriculum design and accessibility to the curriculum and instructional materials.

The term 'special educational needs' covers a range of problems which can cause difficulties in learning. Special needs education is education for students with disabilities (such as visual, hearing, cognitive, neuro-motor, multiple disabilities) , in consideration of their individual educational needs, which aims at full development of their capabilities and at their independence and social participation

Focus of this course is on role and importance of Information and communication technologies for education of students with special needs. It specifically discusses about the ICT and Assistive tools and methods that serves as assistive aids to the target user group.

Course Objective

Upon completion of the course the students will be able to

- Develop understanding of special need education: identification, scope and requirements.
- Develop understanding of assistive technology and development lifecycle
- Analyse the educational needs for students with different types of disabilities
- Identify the different ways ICT can aid to enhance the educational experience for students with special needs.

Course Outcome

- As course project, students will develop assistive system for aiding in education for students with a specific disabilities.

Course Content

Each of the modules on disabilities will be accompanied by discussion on possible technical intervention and their development.

Fundamentals of Assistive Technology and Inclusive Education

- Introduction to Assistive technology and Inclusive Education, role of ICT in SNE – 3 lectures

- Brief Introduction to different types of disabilities and how they affect the educational needs – 2 lectures

Design principals for Assistive ICT

Rights based approach, issues with access and opportunities, adaptations for special input / output options – 2 lectures

Learning Disabilities

- Autism Spectrum Disorder: 2 lectures
- Reading-writing difficulties: 4 lectures
- Learning mathematics: 2 lectures
- Difficulties in memory: 2 lectures

Sensory and Physical Disabilities

- Visual impairment: 4 lectures
- Low-vision : 2 lectures
- Speech and hearing impairment : 3 lectures
- Cerebral Palsy: 4 lectures
- Multiple disabilities: 2 lectures

Universal design for learning (UDL),

- application in classroom, on curriculum and TLM / Question paper preparation: 2 lectures

Project discussion

- Presentation of term projects: 2 lectures