LEARNING DISABILITIES

OVERVIEW and DEFINITION

Learning disabilities, while"invisible", are nevertheless real. Scientific evidence has shown that this type of disability is neurologically-based, permanent in nature and exists across the life span. Various types of learning disorders have been identified, the impact of which varies from mild or moderate to severe. You may observe, in the classroom, individuals who demonstrate academic difficulties that are unexpected and puzzling in light of demonstrating at least average intelligence.

Psychologists and learning disability specialists define learning disabilities as specific impairments in one or more of the following psychological processes related to learning:

- acquiring, using and understanding verbal and non-verbal symbols of communication
- language processing (receptive, expressive and pragmatic)
- memory
- processing speed
- visual-spatial processing
- perceptual-motor integration
- executive functions (such as self-monitoring and organizational skills)

These types of disabilities can run in families and are **not** due to lack of motivation, poor teaching or second-language or cultural differences. Academic skills that can be affected include reading (decoding and comprehension), written language (both conceptual and the mechanics of writing), oral language (listening, speaking and understanding instructions), math (concepts and computation) and organization/planning skills. Other types of learning disabilities may affect spatial, mechanical abilities, as well as socially-based non-verbal domains (missing social cues).

Learning disabilities are permanent and affect all aspects of life. Other conditions can co-exist with learning disabilities, for example, an Attention Deficit Disorder, as well as anxiety or depression. As individuals with learning disabilities have generally well developed intellectual abilities, success at college is possible if compensatory strategies are learned, self advocacy skills are developed and used and appropriate accommodations and services are put in place for and used by the student.

EDUCATIONAL IMPLICATIONS and INSTRUCTIONAL STRATEGIES

There are many educational implications for students with learning disabilities. Students may demonstrate a significant discrepancy between theoretical understanding and their practical achievements in areas such as labs and field placements. They may have well developed oral communication skills but demonstrate significant deficits in written expression. Speed of processing may be slow, so that students can not keep up to the pace of the class. Lecture material may not be retained, and in testing situations, remembering formulas to solve application questions may be a significant challenge.

Students may listen to content presented through lectures, understand and retain it, yet reading skills may be deficient. Deficits in word recognition, reading speed and vocabulary can, in turn, affect reading comprehension and the ability to deal with large amounts of reading.

For some students, application courses where spatial reasoning, organization and following a sequence of steps in completing a "hands-on" project may be a challenge, while another student may misunderstand social cues and find it difficult to communicate their needs with professors and peers. The following **instructional strategies** are recommended:

- introduce a variety of study strategies that will reinforce important concepts
- provide feedback such as error analysis of tests
- use visuals, demonstrations, and practical examples to reinforce theoretical concepts

- introduce key concepts and vocabulary at the beginning of new units of study
- provide structures such as outlines and advance organizers to lectures
- provide reading lists ahead of time
- allow time to review and clarify concepts presented in class as well as to answer questions prior to the student starting an assignment or task
- give several short assignments rather than one long one

SUGGESTED ACADEMIC ACCOMMODATIONS

- reduced course load (encourage to take fewer courses, if needed, each semester)
- provision of a peer note-taker for classes
- Tape recording of lectures
- extended time for tests and exams (usually time and a half)
- use of memory aids, formula cards or calculator on tests/exams
- exams may need to be written on a computer with editing functions and/or adaptive software
- use of writing tools (e.g. spelling dictionary) so marks are not taken off for spelling
- written exams/tests in a quiet room (test proctoring)
- Clarification of questions on tests/exams