

Department of Communication Disorders and Sciences

CD 485 Augmentative and Alternative Communication

Course description: The study of unaided and aided communication systems and modalities to provide augmentative and/or alternative communication habilitation and rehabilitation to communicatively handicapped individuals. Contemporary microcomputer hardware and software, program development, devices and applications in the fields of Speech-Language Pathology and Audiology are introduced. Library research, using computers and specialized software, and diagnostic and rehabilitative procedures are discussed, along with requirements and methods of clinical documentation. Regular written assignments are required.

Prerequisites: CD 405 (or equivalent), CD 410 (or equivalent), CD 415 (or equivalent), CD 442 (or equivalent)

Knowledge and Skills Analysis (KASA) for Department Majors

For majors in Speech-Language Pathology, this course contributes to:

Standard III-C. The Nature of Disorders:

- Social Aspects of Communication: (Etiologies and Characteristics)
- Communication Modalities: (Etiologies and Characteristics)

Standard III-D. Prevention, Assessment and Treatment Methodology:

- Social Aspects of Communication: (Prevention, Assessment & Intervention)
- Communication Modalities: (Assessment and Intervention)

Standard IV-B.

- Oral and written and other forms of communication

Student Learning Outcomes

- Knowledge of how to use the CANVAS Learning Management System
- Knowledge of Information Literacy and Website Evaluation
- Knowledge of how to use the Computer to do Library Research Online

- Knowledge of the Issues, Needs and Options in the use of Augmentative and Alternative devices for Communication Disabled persons

Course Requirements and Grading Bases

1. **Pre & post tests** (10 points)
 - a. The Pre Test is to be taken immediately through Canvas. You may wish to print it out. (This counts for 0% of Final course Grade)
 - b. The Post Test is to be taken through Canvas by the time of the last class. It is It will count for 10% of Final Course Grade. You are allowed to discuss this test among your colleagues.
2. **Term Paper** (20 points) on Augmentative/Assistive Communication Devices (approximately 3000 words). The Topic is to be chosen from one or more of any of the Sub Headings in the Class Hypertext. The paper must have at least one reference in APA format at the end. This reference must be at least one article or a book reference which is not just an internet site. Full Text Articles or Books obtained from the internet are, however, permissible. The paper is to be included as part of the Class Notebook [item 7] described below)
3. **Class Notebook** (an Electronic Portfolio) -- This will be submitted electronically on a CD, DVD or Thumb drive. It should include the following sections (files):
 - a. A computer generated ID picture with first and last name (5 points full credit): You can use a digital camera or a scanner. If you have access to neither tell the instructor and he will make arrangements. This picture may include, besides yourself, images of spouses, boy/girl or any friends, pets, and family members, or any inanimate objects, but please be sure to label yourself because family members (and in our house, pets) often resemble each other. Some students have included an array of individual body parts (only those acceptable in church please) as a sample test or exercise of visual closure. But in such cases it is necessary to remember to include the blended answer (i.e., the total picture) somewhere in the portfolio or a name.
 - b. TWO presentations developed through Power Point or Keynote (20 points each credit): Both will have a three card (slide) minimum. The first Program will be designed to teach a cognitive, language, speech, or pragmatic concept. This presentation should have pictures, interactive links, feedback, and sound. The second presentation will be a very simple mock Speech Generating Device (SGD). It will also have a minimum of three cards with pictures, links and Speech Sounds. Examples will be given in the Class Lecture and associated Texts.

- c. A Case report on Funding an AAC Device (10 points full credit). Given some client information, a Case Report laying the basis for the purchase of an AAC device will be generated and included in the Portfolio. The form for this report will be provided.
- d. A Library Search report/bibliography (10 points full credit) on the topic of Augmentative and/or Assistive Devices for Communicatively Handicapped individuals. This list will include references in APA format. It IS NOT necessary to include any URLs in the reference, but it IS necessary to indicate for each reference what Database (viz., GEAC or CINAHL or Science Direct etc.) was used to locate it.
 - i. Please obtain FOUR (4) references for Books on the Topic of Augmentative/Alternative Devices (or similar subject headings)
 - ii. Please obtain TEN (10) references from journals on the Topic of AAC...selected from the list of databases provided below
 - 1. ONE of the Ten references above should be a FULL TEXT article. Please include this article in its entirety in your electronic portfolio.
- e. Review, analysis & report on ONE commercial computer rehabilitative program (5 points Full Credit): This program does not have to be directly linked with Communication Disorders. Any computer program that TEACHES something will do.
- f. Generate 20 questions from the Class Electronic Textbook (25 points).
 - i. The First Set of 20 multiple choice questions and answers will be generated from the Class Electronic Textbook: TWO will be made up from the Introduction, and SIX from each of the three Sections of the Class Text. The questions will all be in a multiple choice format with five options (a thru e), with the one intended answer indicated by an * or some other means.
 - ii. The Second Set of 20 multiple choice questions and answers will be generated from the Class Lectures-- ONE QUESTION MINIMUM FOR EACH LECTURE starting with the first lecture. {NOTE:Because there are around 15 classes in the semester, it will be necessary to include TWO questions for some classes.} For Full Credit, ALL of the classes must be covered with at least one question, and that for each question you note the date of the question.
 - iii. Four Electronic Test Completion Certificates from the Class HyperTextbook (40 points)

1. Four Certificates verifying successful completion of the Tests at the end of each of the four HyperText Sections will be printed out and submitted in the electronic portfolio.

Grading Criteria

- 120 points or above = a Final Course Grade of A
- 80 points or above = a Final Course Grade of B
- 40 points or above = a Final Course Grade of C
- 20 points or above = a Final Course Grade of D
- 10 points or above = a Final Course Grade of F

Class Text

Required: *WHEN THE TALKING STOPS-IT'S TIME FOR ACTION - Assistive Communication Technology: Issues, Options and Needs*

Required: *A Text Tutorial on Developing Therapy Programs Using Power Point --THE POINT OF POWER THERAPY*

Table of Contents of Class Text

SECTION 1: Assistive Communication Technology Issues Options and Needs (ACTION)

1. Introduction
2. The Four Text Exams

Test 1 – Introduction (5 questions)

SECTION 2: Issues in Assistive Technology

1. What is Assistive Technology (AT)
2. What are Assistive Technology Services
3. Who are qualified to be an AT Service Provider
4. Who in the Schools Determines the eligibility for Assistive Technology and Services
5. What are Low -Tech Devices
6. What are High - Tech Devices
7. What is the Role of Assistive Technology (AT) in General in Communication
8. What is an Interdisciplinary AT Team
9. What is a Family Centered Therapy Approach
10. What are the Funding Sources for AT
11. What are some of the Objections Behind the Rejection of Funding Applications

Test 2 – Issues (20 questions)

CTCPD 6c; 4a, 4b, 4c, 5a, 5b, 6a, 6b, 6c, 7b; 4a, 4b, 4c, 5a, 5b, 6a, 6b, 6c, 7b;

CTCSLP 4c, 5c, 7a, 7b; 4c, 5c, 7a, 7b

SECTION 3: Options in Assistive Technology

1. What is Assistive Technology
2. What is Augmentative and Alternative Communication (AAC) for Disabled Individuals
3. What are Non Computer Aids to Communication
4. What are Computer Aids to Communication
5. What are Computer Input Systems
6. What is Computer Processing--How the Data is Organized
7. What are Computer Output Systems
8. The End Game – Putting all the Pieces of the Puzzle Together

Test 3 – Options (20 questions)

SECTION 4: People with Special Needs

1. What is the Need for Assistive Technology
2. ASHA's Position Statement
3. Needs Assessment
4. What are the needs in Assistive Technology for Communication Disabled Individuals
5. What are the Physical Needs causing the Impairment
6. What are the Psychological Needs Contributing to the Disability
7. What are the Practical Needs Involved in the Handicap
8. Putting it all Together to achieve Functional Communication

Test 4 – Needs (20 questions)

CTDPD 3a, 4a, 4b, 5b, 3a, 4a, 4b, 5b;

CTCSLP 2b, 2c, 3b, 4a, 4b, 4f, 5g; 2b, 2c, 3b, 4a, 4b, 4f, 5g

Class Schedule

Session 1. Introduction to the CD 485 Class, its goals and requirements.

- Recognizing the role of AAC for clients with locked in syndrome to recover communication capability.
- A brief Introduction to AAC Devices **CTCSLP 4f**

Session 2. Communication and the role of AAC

- Discussion of the Processes of Communication including physical, neurological, and sensory, perceptual, cognitive and motor processes. **CTDPD 3c; CTCSLP 1b,1c**
- End of Class: Turn in multiple choice questions on the processes of Communication. **CTDPD 3c; CTCSLP 1b, 1c**

Session 3. Library session A - Computer Access to the Library

- Evidence based practice – search strategies

Session 4. Library session B

- Reading: Section 1 of class text
- Discuss the role of AAC in communication rehabilitation and the use of evidence based therapy to develop multifaceted therapy strategies.

Session 5. The role of MODALITIES IN AAC

- Reading: Section 2 of class text
- Discuss the role of Modalities in AAC rehabilitation therapy and the sensory, perceptual and cognitive processes involved in the modalities that provide these pathways . **CTCSLP 1b, 1c**
- Turn in multiple choice questions on the role of modalities-- and the sensory, perceptual and cognitive processes involved in communication. **CTCSLP 1b, 1c**
- Turn in certificate for completion of Section 1

Session 6. Issues, Options and Needs in AAC

- Reading: Power Point Tutorial
- Discuss issues in AAC Device development
- Turn in certificate for completion of Section 2

Session 7. AAC and Modalities

- Reading: Section 3 of class text

- Discuss Non Computer AAC Devices and the need to train users of SGD, their caretakers, and others in their use. Discuss Personal Computers as AAC Devices and their role in Communication. **CTCSLP 5f**
- Multiple choice questions on Non Computer AAC Devices and the need to train users of SGD, their caretakers, and others in their use. **CTCSLP 5f**

Session 8. AAC Issues, Options and Needs

- Discuss incorporating voice input
- Discuss voice input systems in the development of therapy programs
- Turn in certificate for completion of section 3

Session 9. Fast Forward

- Reading: Section 4 of class text
- Discuss various AAC devices and software
- Turn in presentation program

Session 10. Prentke Romich

- Discuss issues and use of AAC Dedicated Devices and the benefits of UNITY for typical and atypical populations in developing language that will lead to the ability to express their needs, and the development of Literacy in English. **CTDPD 3b, 3c, 7a, 7c CTCSLP 2c, 2d, 2e**
- End of Class multiple choice questions on issues and use of AAC Dedicated Devices and the benefits for typical and atypical populations in developing language that will lead to the ability to express their needs, and the development of Literacy in English.
- Turn in certificate for completion of section 4 of class text **CTDPD 3b, 3c, 7a, 7c CTCSLP 2c, 2d, 2e**

Session 11. Dynavox

- Reading: Language sets and AAC Device Accessories
- Discuss Dynavox devices

Session 12. Lingraphica

- Reading: Lingraphica and Aphasic Clients
- Discuss Lingraphica device

Session 13. Saltillo & Development of no-tech, low-tech, and high-tech Devices.

- Discuss different uses of no tech, low tech, and high tech devices

Session 14. AAC Report writing and Funding

- Discuss issues involved in getting AAC FUNDING

Session 15. Partner Assisted Scanning

- The relation of Butterflies and Bells to AAC
- Turn in term paper

Special Needs

Requests for accommodation in test taking or other special needs must be made to the instructor by the second class meeting (or during the first week of the session, for on-line students). Students who are authorized the assistance of sign language interpretation or who are receiving real time captioning, are permitted preferential seating in class (if this becomes applicable).

Academic Honesty

Every member of the academic community at California State University Northridge is expected to act with honesty and trustworthiness. In this course and all other, acts of cheating, not covered by Collaborative Learning as applied in this class, plagiarism, misrepresentation, or other forms of dishonesty are not tolerated. Student academic dishonesty will result in penalties ranging from a failing grade on an assignment or examination, to a failing grade in the course, to referral to the Office of Student Affairs for a determination of suspension or dismissal from the University, as described in the University Catalog; or worse yet, assignment to be one of s Graduate Assistants for a semester!! Of course in this class you can forget about most of this since I want you all to work together. Plagiarism, of course, will be frowned upon.

CD 485 Computer Applications in Communication Disorders Augmentative and
Alternative Communication – Linking document

Legend

Introduced

Practiced

Assessed

CTCPD

Standard 3a – practiced page 5

Standard 3b – practiced page 7

Standard 3c – practiced page 6, 7 assessed page 6, 7

Standard 4a – practiced page 5 assessed page 5

Standard 4b – practiced page 5 assessed page 5

Standard 4c – practiced page 5 assessed page 5

Standard 5a - practiced page 5 assessed page 5

Standard 5b - practiced page 5 assessed page 5

Standard 6a - practiced page 5 assessed page 5

Standard 6b - practiced page 5 assessed page 5

Standard 6c – Introduced page 5 practiced page 5 assessed page 5

Standard 7a - practiced page 7 assessed page 7

Standard 7b - practiced page 5 assessed page 5

Standard 7c - practiced page 7 assessed page 7

CTCSLP

Standard 1b - practiced page 6 assessed page 6

Standard 1c - practiced page 6 assessed page 6

Standard 2b – practiced page 5 assessed page 5

Standard 2c – practiced page 5, 7 assessed page 5, 7

Standard 2d – page 7 page 7

Standard 2e – page 7 page 7

Standard 3b -page 5 page 5

Standard 4a – page 5 page 5

Standard 4b – page 5 page 5

Standard 4c - – page 5 page 5

Standard 4f – page 6 - page 5

Standard 5c -page 5 page 5

Standard 5f – page 7 page 7

Standard 5g -page 5 page 5

Standard 7a -page 5 page 5

Standard 7b -page 5 page 5

