

Summer 2019

# Applied Technology Methods for Students with Visual Impairments

## Syllabus:

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### Course Description:

This course will assist the class participants in understanding applied technology to meet the educational needs of students with visual impairments and blindness. The goal is to educate the participants about available technology, assessment, and decision making in selecting adaptations to meet the students needs. In addition, discussions on legal issues, funding, inclusion of technology on the IEP, resources for support and training will also be included.

### Prerequisites:

Having a working knowledge of the Windows 10 or Macintosh (macOS) Mojave, be able to email, gather information on the internet with a web browser, and write assignments with a word processor. Some understanding of i-Devices (iPad, iPhone), Chrome OS and Chromebooks would be helpful.

### Course Objectives:

The goal of this course is to enable the participants to implement the use of applied technology in order to foster academic and personal independence in their students. To meet this goal, participants will:

1. LEARN- Acquire a body of knowledge about assistive technology for students with visual impairments and blindness, inclusive of technology on the student's IEP, and strategies to support it.
2. TEACH- Develop the skills necessary to teach students with visual impairment and blindness to use both mainstream and assistive technologies.
3. ADAPT- Develop the skills to assess what adaptations will best meet the unique needs of each of your students.

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4. PROFICIENCY WITH NOTETAKERS-Since Braille Literacy is so important, teachers need to master the basic use of Braille notetakers to support their students.
  5. TEACHING ACCESS AND PRODUCTIVITY TECHNOLOGIES- Teach students to master access technologies such as “accessing print” and “electronic information”, and production technologies such as “written” and “alternative” format information.
  6. RESOURCEFUL AND NETWORKING SKILLS- Increase your knowledge regarding products, vendors, and specialists with whom to collaborate when providing technology services to students with visual impairments and blindness.

#### Instructional Pedagogy and Learning Methods:

This class employs a variety of instructional approaches and learning methods that will help the participants master the content and achieve the class objectives in adaptive technology for two types of students- Low Vision and Blindness.

Lectures for the core information needed will be introduced in five topical areas: The Changing Literacy and AT Tools, Getting Familiar with the AT Tools, AT and The Decision Making Process, Student Concerns and AT Solutions, and Resources to Support the TVI and Student with Visual Impairments

Online Quizzes of the adaptive technologies discussed in class, and available in the “hands on” labs will be available to the participants on the class Canvas site to help provide an introduction to their features, function, and operative concepts. Students will need to view and complete ten of the quizzes (See course requirements).

Hands On Learning Stations (Lab) will have 15 adaptive technologies with assignments available each day. Students will need to visit the lab, complete the assignments; update their Study Guides during assigned times during the day and evening labs. Staff and Student mentors will be available at the stations.

Required Readings (both assigned and optional) will provide additional information on adaptive technology issues from the AccessWorld (AFB) site, and are available on the class Canvas site.

Small Group Project will help participants prepare for the assessment and decision making of adaptive technologies through review of case studies, completion of the SETT Considerations form, and sharing their findings in a presentation to the class.

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Study Guide is a guided question “fill-in-the-blank” format to help the participants learn the core skills and concepts for this course. Information will be gathered from all the other pedagogies in the course.

Final Exam will be online (paper if requested) on the last day (Thursday) of the class, and will help students remember the core skills and concepts on adaptive technologies for students with visual impairments.

Required Readings:

[The HumanWare BrailleNote Touch: A Braille Tablet for the 21<sup>st</sup> Century](#)

[MyReader and MyEye from OrCam: Text and Item Recognition at the Touch of a Finger](#)

[BARD Express: NLS Talking Books and Magazines When and Where You Want Them](#)

Course requirements:

1. Attendance and Class Participation are required in class, labs, tutoring groups, and small group projects. If you are absent or plan to be absent from class, it is your responsibility to contact the instructor to make arrangements to make up the time and assignments.
2. Since this class is taught during the summer, and is only scheduled for two full and two half days, attendance in the early evening hours is required. Special arrangements can be provided on a case by case basis such as watching videos of the tutoring sessions; attending the labs earlier in the class day.
3. Students are required to complete the following:

3.1 Pre-Test, Study Guide, and Final Exam. The Pre-Test is online and can be taken several times to achieve the Passing Score (100%) to help prepare for the final. (No Points). The Study Guide will be handed out in class on the first day, but is also available online and can be downloaded. Information for this study guide can be obtained from the class lectures, “Hands on Lab”, and Online Quizzes. A completed Study Guide (20 Points) must be handed in before taking the Final Exam (50 Points).

3.2 Ten Online AT Quizzes can be taken anytime, but must be completed before the Final Exam. Each quiz is worth One Point after achieving a Passing score (100 percent), or 10 points total.

3.4 SETT Assessment/Presentation Project- Using the SETT “Considerations” form, a written case study, student video, students in groups of 4 will complete the form (10 points) and give a 5 minute presentation (10 Points) to defend their recommendations. Recommendations should support the following: What technology had been used (1 Point), what is recommended (1 Point), why is recommended (1 Point), who will implement and support it (1 Point), and expected outcomes (1 Point).

3.5 . Complete all the activities in the “Hands On” Lab- Students are to complete all the learning station assignments in the lab, and update their Study Guides. Turn the guides in for credit (20 points), and they will be returned.

Grading Criteria:

Online Quizzes 10 points

Study Guide 20 Points

Group Project-SETT Assessment and Presentation 20 Points

Final Exam 50 Points

Grading:

In order for participants in the class to receive a grade, the required online Quizzes, Completed Study Guide, Group Project, and Final Exam must be completed.

Points	Grade
98-100	A+
94-96	A
90-93	A-
87-89	B+
84-86	B
80-83	B-
77-79	C+
74-76	C
70-73	C-
60-69	D
Below 59	F

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A grade of incomplete will be given only in unique situations that prohibit a student from completing class requirements. An incomplete will be allowed only if a substantial portion of the class assignments have been completed (45 points or more), and the student has a satisfactory grade of an A or B at the time of the request.

#### Students and Disabilities

[It is the policy of UNL to accommodate students with disabilities, pursuant to federal and state law.](#) Any student with a disability who needs an accommodation, for example in seating placement or in arrangement for examinations, should inform the instructor at the beginning of the course.

The chair of the department offering this course is also available to assist with accommodations. Students with disabilities are encouraged to contact the [Office for Students with Disabilities](#).