

- New Course
- Update/No change
- Course Revision (Minor)
- Course Revision (Major)

Date: February 24, 2011

Department: DSKL                      Number: 817  
Course Title: Assistive Computer Access      Units: .5 or 1.0 unit

Total Semester Hours

Lecture: 0    Lab: 24 or 48 lab hours by arrangement    Homework: 0      By Arrangement: 0

Length of Course

- Semester-long
- Short course (Number of weeks \_\_\_)
- Open entry/Open exit

Grading

- Letter
- Pass/No Pass
- Grade Option (letter or Pass/No Pass)

Faculty Load Credit (To be completed by Division Office; show calculations.):  
0.7\*24/16 = 1.05 FLCs for 0.5 units; 0.7\*48/16 = 2.1 FLCs for 1.0 unit

1. Prerequisite (Attach Enrollment Limitation Validation Form.)  
None
2. Corequisite (Attach Enrollment Limitation Validation Form.)  
None
3. Recommended Preparation (Attach Enrollment Validation Form.)  
None
4. Catalog Description (Include prerequisites/corequisites/recommended preparation. For format, please see model course outline.)

DSKL 817 ASSISTIVE COMPUTER ASSESSMENT (.5 or 1) (Pass/No Pass grading) (Open entry/open exit) Minimum of 24 or 48 lab hours by arrangement per term. Designed primarily for students with disabilities, this course provides training in the use of computer-based assistive technology which supports students' learning styles and/or physical needs. Students will use the assistive technology as a tool to complete class assignments. A materials fee in the amount shown in the Schedule of Classes is payable upon registration. May be taken four times for a maximum of 4 units. (Units do not count toward AA/AS Degree.)

5. Class Schedule Description (Include prerequisites/corequisites/recommended preparation. For format, please see model course outline.)

Assistive computer technology instruction designed primarily for students with disabilities. Students will learn to use assistive technology to support their learning style or physical needs. A \$\_\_ materials fee is payable upon registration. Pass/No Pass grading. Open entry/open exit. May be taken four times for a maximum of 4 units. (Units do not apply toward AA/AS degree).

6. Student Learning Outcomes (Identify 1-6 expected learner outcomes using active verbs.)  
Upon successful completion of the course, the student will be able to:
  - Configure assistive technology to meet individual needs.
  - Use assistive technology to access course materials.
  - Use assistive technology to access the Internet.

- Use assistive technology to access computer applications.
7. **Course Objectives** (Identify specific teaching objectives detailing course content and activities. *For some courses, the course objectives will be the same as the student learning outcomes. In this case, "Same as Student Learning Outcomes" is appropriate here.*)

Same as Student Learning Outcomes.

8. **Course Content** (Brief but complete topical outline of the course that includes major subject areas [1-2 pages]. Should reflect all course objectives listed above. In addition, a sample course syllabus with timeline may be attached.)

The topic areas that are addressed during this course are based on the specific assistive technology software application the student learns to use to support his/her learning style and/or physical needs.

#### Module 1 Access Technologies

The student will learn to use the specialized access technology appropriate to his/her specific needs.

1. **Keyboard Access** (for students with physical limitations) The Windows and Macintosh operating systems have built in keyboard assistance for students typing with one hand or limited hand use. Word prediction and abbreviation expansion software tools are available for more efficient text input.
2. **Screen Reader** (for blind/low vision students) This software program allows a student who is blind or with limited vision to hear what is on the screen. It converts information from the screen and sends it to a speech synthesizer. The speech synthesizer can speak what is on the screen.
3. **Voice Recognition** (for students who are unable to use their hands or who have difficulty getting their ideas down on paper without getting slowed down by spelling difficulties, slow keyboarding or illegible handwriting) Voice recognition software allows the student to dictate text and speak commands without using the keyboard or the mouse.
4. **Large Text** (for students with visual impairments) Both text, graphics, icons and mouse pointer are enlarged on the screen allowing students with limited vision to see the screen.
5. **Text-to-Speech** (for students with specific learning disabilities or other print-related disabilities) Students use this software program to read their textbooks and/or written work aloud. The auditory feedback and study tools can improve comprehension, attention/focusing and retention and assists with proofreading written work.

The student will learn to configure the access technology appropriate to his/her specific needs.

1. set program features/preferences to meet individual learning needs;
2. manage files (CD, usb drives, email attachments);
3. navigate dialogue boxes, toolbars and menus.

The student will learn to use the access technology in conjunction with Microsoft Word.

1. text input
2. file save/retrieve
3. editing
4. formatting
5. searching
6. proofreading, study tools and strategies
7. navigating menus, toolbars, dialogue boxes, help screens

The student will learn to use the access technology in conjunction with a web browser.

1. navigate webpages;
2. access address bar, forms, buttons, drop down lists, text links, image links, web email;

3. search the web.

## Module 2 Independent Projects

This module is designed for students who have completed Module 1 and want to refine their skills and learn new applications of the assistive technology. It is also designed for students who may need additional supervised practice of the skills presented in Module 1.

1. The student will meet with the instructor to discuss and outline the project.
2. The student will complete an educational contract which details the work to be done, the assistance required, and the estimated length of time needed to complete the assignment, assignments to turn in and evaluation criteria.

(Examples: a low vision student learning to use access technologies with software required for an accounting class; a blind student using a screen reader program to develop specific formats for a course in medical transcription.)

9. **Representative Instructional Methods** (Describe instructor-initiated teaching strategies that will assist students in meeting course objectives. Describe out-of-class assignments, required reading and writing assignments, and methods for teaching critical thinking skills. If hours by arrangement are required, please indicate the additional instructional activity which will be provided during these hours, where the activity will take place, and how the activity will be supervised.)

The class will be conducted on a group or individual basis depending upon the particular software application being taught (e.g., small group for *text-to-speech*; maximum of 5 students for voice recognition; and individual instruction for screen reader). Methods of instruction will include the following: lecture, demonstration, laboratory, hands-on computer use, reading of printed material or materials provided in alternate formats (e.g. instructor-prepared manuals and reference materials in electronic text or Braille, electronic text of textbooks used in academic classes)

10. **Representative Methods of Evaluation** (Describe measurement of student progress toward course objectives. Courses with required writing component and/or problem-solving emphasis must reflect critical thinking component. If skills class, then applied skills.)

Typical assignments may include:

1. Weekly hands-on, in-class assignments that demonstrate the student's ability to use and apply the features of the software application to a reading or written assignment.
2. A final project that requires students to complete the following:
  - a. The final project for text-to-speech requires students to use material from a textbook and look up definitions/synonyms for unfamiliar words, add Bookmarks to different sections of the material and apply the study skill tools that best suits their studying and learning style (i.e., highlighting headings, topic sentence and supporting details, extracting highlights or Text Notes or Sticky Notes outlining important details)
  - b. The final project for voice recognition, screen reader and screen magnification, involves creating an outline for a given topic, composing and editing a one-page written assignment on the topic.
3. A final practical exam that assess student's ability to access and use the various features of the assistive technology.

11. **Representative Text Materials** (With few exceptions, texts need to be current. Include publication dates.)

- **Kurzweil 3000 2010** - Instructor-prepared manual (step-by-step instructions and assignments) by Carolyn Fiori and Judy Lariviere. (This manual is updated when the software is updated.)

- **Dragon NaturallySpeaking 2011** - Instructor-prepared manual (step-by-step instructions and assignments) by Carolyn Fiori and Judy Lariviere. (This manual is updated when the software is updated.)
- **For JAWS and Magic** - Freedom Scientific Tutorials, version 12 (2011), formatted in electronic text or in Braille. (These materials are updated with each new software update.)
- **For Zoomtext**, version 9 - User's Manual from AiSquared (2009)

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