

# A Quick Overview of Accessible Course Materials

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# Videos of Different Learning Styles

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- Videos of how students with disabilities learn:
  - [Gloria A's story](http://teachingcommons.cdl.edu/access/materials/GloriaA_Story.shtml) for tips on accessible documents:  
[http://teachingcommons.cdl.edu/access/materials/GloriaA\\_Story.shtml](http://teachingcommons.cdl.edu/access/materials/GloriaA_Story.shtml)
  - [Lana's story](http://teachingcommons.cdl.edu/access/materials/LanaStory.shtml) for tips on accessible slides:  
<http://teachingcommons.cdl.edu/access/materials/LanaStory.shtml>
  - Real Connections: [Making Distance Learning Accessible to Everyone](https://www.youtube.com/watch?v=F3sdR53ho2g) for tips on how students with different disabilities learn:  
<https://www.youtube.com/watch?v=F3sdR53ho2g>

# Who are Our Students?

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- Educational, does one size fit all?
- Individuals bring in different skills, culture, learning style, needs, interests, and other characteristics to learning.
- "Diversity" in our student population is more than cultural; it includes a wide range of physical, visual [sensory], hearing, learning [cognitive], attention, and communication abilities.
- Courses or presentations designed with Universal Design for Learning (UDL) “strive to focus on the strength of individuals... what they CAN do rather than on what they cannot” and “proactively address the needs of people with the broadest range of characteristics...” (Emmert, M. A. 2008)

# AEC Student Registration Data at SJSU

SJSU AEC student registration data from 2004 to 2015:

- A growth from 2% in Spring 2004 to about 4% in Spring 2015

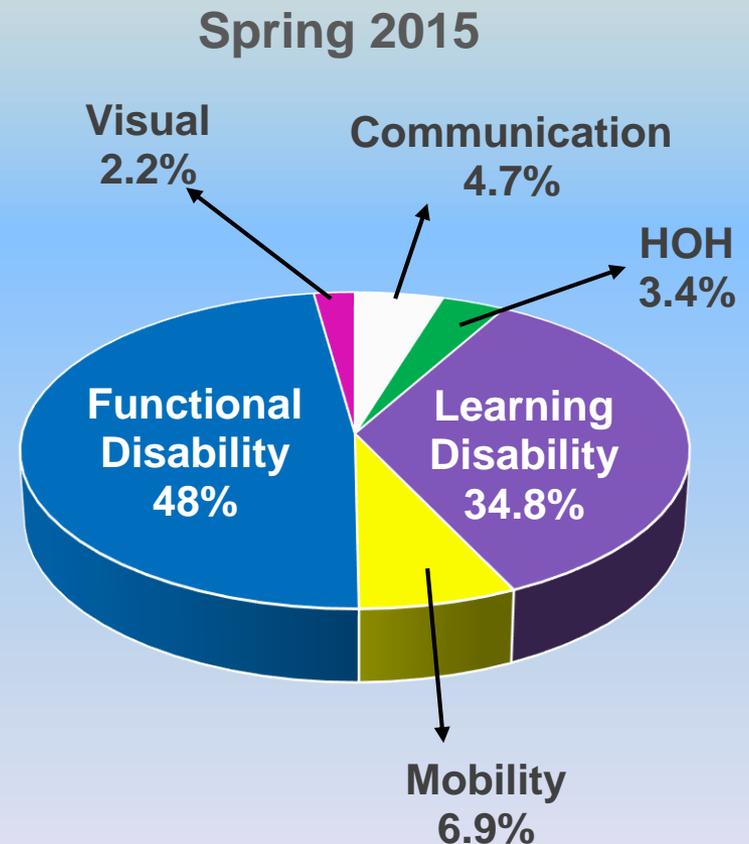
Semester	AEC Registered Students	SJSU Student Enrollment
Spring 2004	553 (2%)	28,800
Fall 2005	890 (3%)	29,975
Fall 2006	933 (3%)	29,604
Fall 2007	1073 (3%)	31,906
Fall 2008	1124 (3%)	32,746
Fall 2009	1127 (3.6%)	31,280
Fall 2010	1058 (3.6%)	29,076
Fall 2011	1127 (3.7%)	30,236
Spring 2012	1102 (3.9%)	28,002
Spring 2013	1125 (4.1%)	27,503
Spring 2015	1142 (3.8%)	29,954

# SJSU AEC Student Distribution

## AEC Spring 2015 student registration data

- Visual disability = 25 (2.2%)
- Communication = 54 (4.7%)
- Deaf/HOH = 39 (3.4%)
- Functional disability = 548 (48%)
- Learning disability = 397 (34.8%)
- Mobility = 79 (6.9%)

Total = 1142



# edX DOJ Settlement Agreement

## April 2015

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- edX was created by the Massachusetts Institute of Technology (MIT) and Harvard University in 2012 as a nonprofit platform for select universities to offer MOOCs to the world.
- It has about 60 university and institutional members providing over 450 courses to over 3,000,000 learners.
- On April 2<sup>nd</sup>, 2015, edX reached a settlement agreement with Department of Justice for the alleged violations of the Americans with Disabilities Act (ADA).

# The Four-Year Agreement Requires edX to

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- make the edX website, its mobile applications, and learning management system software, through which online courses are offered, fully accessible **within 18 months**;
- ensure that its **content management system**, called Studio, which edX makes available to entities creating online courses, **is fully accessible** and supports authoring and publishing of accessible content within an additional 18 months;
- **provide guidance to course creators at its member universities and other institutions on best practices for making online courses fully accessible**;
- appoint a Web Accessibility Coordinator;
- adopt a Web Accessibility Policy;
- **solicit feedback from learners on the accessibility of the courses**;
- conduct Web Accessibility Training for employees responsible for the website, platform, and mobile applications; and
- retain a consultant to evaluate conformance of the website, platform, and mobile applications.

# Complaints over Inaccessibility

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7 complaints from disable students at University of Montana over inaccessible online courses:

1. Inaccessible live chat and discussion board in Moodle LMS
2. Inaccessible faculty-prepared class assignments and materials on the learning management system, Moodle.
3. Inaccessible documents that are scanned images on webpages and websites.
4. Inaccessible videos, and videos in Flash format, that are not captioned.
5. Inaccessible library database materials.
6. Inaccessible course registration through a website, Cyber Bear.
7. Inaccessible classroom clickers.

Note: For more information about the 7 complaints, visit <http://goo.gl/FIZjB>

# Settlement Agreement over Inaccessibility, May 2013

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UC Berkeley's Settlement Agreement with Students with Print Disabilities on May 7, 2013:

- Timely access to instructional materials with accessible alternate media format
  - Textbooks: 10 business days
  - Course readers: 17 business days
  - Request for timely delivery of alternate format: 3 days prior to start of class
- Improve library online catalog software for screen reader access
- Implement scanning machines or other assistive technology to allow self-service by students
- Provide assistance with scanning for those with physical disabilities
- Faculty may be subject to referral to the Vice Provost and reference the Faculty Code of Conduct if they refuse to submit textbook adoptions at least 7 weeks prior to start of class
- Reading materials posted by the faculty and staff will be made accessible in a reasonable and equitable time frame.

Note: For more information about this [UC Berkeley's Settlement Agreement](http://goo.gl/P6L56), visit <http://goo.gl/P6L56>

# Settlement Agreement over Inaccessibility, July 2013

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Louisiana Tech University's Settlement Agreement on July 23, 2013:

## Synopsis

- A blind student was unable to participate in a course due to an **inaccessible online learning product (MyOMLab) and hard copy classroom handouts**
- Faculty member directed student to app vendor and assigned another student in the course to convert the handouts
- **Campus failed to provide equal and timely access to the course materials within one month**
- **Student dropped the course due to inability to participate equally in the class discussion or prepare for the exams in a timely manner**

## Outcomes

- **Policy Related**
  - Affirm the role of Disability Services (DS) Office as the authorized liaison between students and faculty and DS to coordinate with instructors on the delivery and service of course accommodations
  - University will revise and adopt policies and procedures to comply with accessibility standards and disseminate appropriately within 120 days

# Settlement Agreement over Inaccessibility, July 2013 (cont.)

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Louisiana Tech University's Settlement Agreement on July 23, 2013 (cont.):

## ➤ Training Related

- All instruction-related individuals [faculty, TAs, administrators] must receive [ADA] training on their role and responsibilities, campus resources, best practices
- All student orientation will include presentation by Disability Services office

## ➤ Reporting Related

- Report the above faculty and student training dates and attendance
- Submit initial and annual compliance reports concerning this Settlement Agreement (policy revision, training and related complaints)

Note: For more information about this [Louisiana Tech University's Settlement Agreement](http://www.ada.gov/louisiana-tech.htm), visit <http://www.ada.gov/louisiana-tech.htm>

# What is an accessible document?

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- Accessibility = Usability = Universal Design for Learning (UDL)
- Accessible documents are digital documents which can be
  - modified by highlighting texts, increasing the font size, or,
  - read out loud by text reader software for users with disabilities.

# What is Universal Design?

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➤ *“Universal Design” was coined by Ronald Mace in the 1970s.*

*“...the design of products and environments to be **usable by all people, to the greatest extent possible**, without the need for adaptation or specialized design.”*



# Examples of Universal Design

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- Examples of barrier-free and user-friendly physical environment and products
  - Street sidewalk curb cuts
  - Accessible Ramp
  - Electronic sensor door
  - Door levers
  - Easy-grip tools
  - Speaker phone

# What is Universal Design for Learning (UDL)?

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- *More learner-centric and barrier-free UDL educational environment*
  - *Different ways to present, describe or explain course content information*
  - *Different strategies or technologies to engage or involve our learners to participate and interact with their learning activities*
  - *Different ways for learners to express or demonstrate their learning*

# The Three Principles of UDL

- Multiple means of
  - **Representation** of your **content**
  - **Engagement**: to engage and motivate your learners to learn
  - **Expression**: to allow **alternatives for learners** to demonstrate or express their learning

I. Provide Multiple Means of Representation	II. Provide Multiple Means of Action and Expression	III. Provide Multiple Means of Engagement
Perception	Physical action	Recruiting interest
Language, expressions, and symbols	Expression and communication	Sustaining effort and persistence
<u>Comprehension</u>	Executive function	Self-regulation

# The Brain Research

Drawing from the brain research, we learn these three unique DNA or pattern of our brain networks in processing information:

- Recognition networks
- Strategic networks
- Affective networks

Recognition  
Networks  
The "what" of  
learning



Strategic  
Networks  
The "how" of  
learning



Affective Networks  
The "why" of  
learning



# Brain Research and UDL

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**Adopting and merging the brain research and UDL in learning and teaching:**

- **Set clear goals and objectives by analyzing the true purpose of our content**
- **Provide flexible instruction by involving as many dimensions of our brain networks via different technologies, methods or strategies**
- **Monitor/assess learner progress and adjust instruction to ensure individual learner are motivated to stay on track and accomplish course goals/objectives**

# Is My Document Accessible?

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- The 2-Minute PDF Quick-Check
- Use accessible syllabus template
- Follow accessibility guidelines in creating Word or PowerPoint slides:
  - Structure
  - Links
  - Images
  - Table/Chart

For more information, visit [CFD accessible documents page](http://www.sjsu.edu/cfd/teaching-learning/accessibility/accessible-documents) at <http://www.sjsu.edu/cfd/teaching-learning/accessibility/accessible-documents>

# Are My Course Materials Accessible?

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1. Have I submitted my textbooks order or course readers through [Faculty Resources](#) at [SJSU Bookstore](#) ?
2. Have I submitted library reserve materials, if any, through [course reserves list](#)?
3. Have I used [accessible syllabus](#) for my course?
4. Have I followed [accessibility guidelines](#) to create handouts or slides?
5. Are my quizzes, examinations or assessment materials accessible? Contact AEC's [Testing Accommodations office](#) for assistance
6. Do my video course materials include captioning? Do my audio course materials include transcript? View [captioning guidelines](#) for details and or complete this [request form](#) to request for help.
7. Are all materials uploaded on my website or Canvas learning management system accessible? Use this [tool](#) to test the accessibility of any websites you reference by entering their URLs.

# Demo

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- How to read a PDF document
- How to convert a scanned image pdf file into an accessible document

# References and Point of Contact

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## Useful References:

- [Accessible syllabus template](http://www.sjsu.edu/cfd/docs/accessible%20syllabus%20template.doc) at <http://www.sjsu.edu/cfd/docs/accessible%20syllabus%20template.doc>
- [Accessible course materials](http://www.sjsu.edu/cfd/teaching-learning/accessibility) at <http://www.sjsu.edu/cfd/teaching-learning/accessibility>
- [Free Adobe Acrobat Professional](http://its.sjsu.edu/services/software/) (part of Adobe Creative Cloud software) download at <http://its.sjsu.edu/services/software/>
- [Captioning](http://www.sjsu.edu/cfd/teaching-learning/accessibility/captioning) at <http://www.sjsu.edu/cfd/teaching-learning/accessibility/captioning> for accessible videos
- Elizabeth Tu, 408.924.3093

**BACK UP SLIDES**

# The PDF Study Results

- In April 2014, an email was sent to the faculty of 1350 courses with 30 or more student enrollments.
- Total number of requests sent = 1350
- Total number of responses received = 352 (27%)
  - No PDF documents posted = 152 (44.3%)
  - Total number of respondents submitted PDF documents = 196 (55.7%)
    - Accessible PDF documents = 162 (82.7%)
    - Not or partial accessible PDF documents = 34 (17.3 %)



# Results by College

- A total of 1350 requests were sent to faculty by college with 352 (27%) returned responses.
- Out of the 352 responses, 156 respondents (44.3%) do not use PDF documents and 196 (55.7%) use and submit their sample PDF documents.

Colleges	Total Requests sent	Total Returns	No PDF used	Yes PDF submitted
Applied Sciences & Arts	228	63 (27.6%)	23 (36.5%)	40 (63.5%)
Business	249	53 (21.3%)	25 (47.2%)	28 (52.8%)
Education	76	28 (34.2%)	10 (35.7%)	18 (64.3%)
Engineering	154	39 (25.3%)	14 (35.9%)	25 (64.1%)
Humanities & the Arts	160	40 (25%)	18 (45%)	22 (55%)
Sciences	228	62 (27.2%)	30 (48.4%)	32 (51.6%)
Social Sciences	255	67 (26.3%)	36 (53.7%)	31 (46.3%)
<b>Total =</b>	<b>1350</b>	<b>352 (27%)</b>	<b>156 (44.3%)</b>	<b>196 (55.7%)</b>

# Accessible PDF Results by College

➤ **82.7 % of the submitted PDFs are accessible.**

➤ **17.3% of the submitted PDFs are not accessible.**

Colleges	Yes PDFs submitted	PDF Accessible	PDF Not/Partial Accessible
Applied Sciences & Arts	40	31 (77.5%)	8+1* (22.5%)
Business	28	26 (92.9%)	1+1* (7.1%)
Education	18	17 (94.4%)	1 (5.6%)
Engineering	25	21 (84%)	2+2* (16%)
Humanities & the Arts	22	20 (90.9%)	2 (9.1%)
Sciences	32	24 (75%)	8 (25%)
Social Sciences	31	23 (71%)	8 (29%)
<b>Total =</b>	<b>196</b>	<b>162 (82.7%)</b>	<b>34 (17.3%)</b>

**\* Text was readable but images were missing alt text**

# Discussion

- **The total return rate was 27% with a range across college from 21.3% to 34.2%**
- **From the 196 submitted PDFs, 162 (82.7%) are accessible and 34 (17.3%) are not accessible**
- **Common problems in non- or partial accessible PDFs are:**
  - scanned images
  - Text was readable but images were missing alt text
  - Text was readable but formula on test questions were not readable

