Online Education

Two Modalities

- Synchronous Learning
- Asynchronous Learning

Advantages of Online Education

- Convenience
- Flexibility
- Increased Course Options
- Increased Interactions (especially for introverts)
- Development of Technical Skills
- Cost Reduction

Disadvantages of Online Education

- Absence of Face to Face Communications, a necessary skill
- Student: Increased Self-Discipline
- Instructor: Increased Preparation/Work
- Unable to Read Body Language (perhaps a future version will employ artificial intelligence to solve this)

Required Resources

- Digital Access
- Device
- Internet Connection
- Accessories – USB microphone (for production), possibly a webcam
- Software – SnagIt, audio editing, possibly other software

Required Online Teaching Skills

- Understanding of Instructional Design
- Strong Organizational Ability
- Time Management
- Online Communication Skills – writing, reading, and how to build trust
- Ability to Inspire Communications and Collaboration
- Digital Literacy
    - Upload/Download
    - Internet Resources
    - Searches, Boolean Tools, Data Bases
    - Shared Files and Directories
    - Monitoring Student Progress
    - Communicating Online
    - Troubleshoot Technical Issues
- Foster a Community of Collaboration

Learning Management System (LMS)

Teachers

- Create Online Class
- Add Assignments
- Curate Resources
- Give Feedback
- Track Progress and Grades
- Communicate by Individual or Group

Learners

- Access Class Online
- Find and Use Online Resources
- Submit Assignments
- View Progress
- Communicate with Instructor and Classmates

Online technology is a platform to deliver instruction, provide feedback, track progress, and bank information. A major tool is a Learning Management System, like Docebo or Teams. Open source LMS includes Moodle, Canvas, Schoology, and Blackboard.

SAMR Model (Dr. Ruben Puentedura)

Enhanced Learning

- **S**ubstitution
  - Doing what we already do. Take notes on a tablet. Read documents on a reader
- **A**ugmentation
  - Write papers in shared files; chat

Transforming Learning

- **M**odification
  - Create PowerPoint
  - Upload speeches to YouTube for peer review
- **R**edefinition
  - Create their own instructional video or podcast
  - Mini Documentary
  - Ted Talk
  - Flipped Class

Lecture-Capturing Software

- Echo360 https://echo360.com/
- Panopto https://www.panopto.com/

Screencast Software

- Screencast-O-matic https://screencast-o-matic.com/
- Jing https://jing.en.softonic.com/download

Video Sharing Sites

- You Tube https://www.youtube.com/
- Vimeo https://vimeo.com/
- Classroom Salon https://www.corporatesalon.com/

Presentation Nearpod https://nearpod.com/

Clickers Poll Everywhere https://www.polleverywhere.com/

Screencast Screenr https://articulate.com/

Recording Options

Recording Methods	Recording Tools
Video	Video camera Smartphone camera Tablet camera
Video conference	Adobe Connect Blackboard Collaborate GoToMeeting Zoom
Lecture capture	TechSmith Relay Kaltura CaptureSpace Panopto Tegrity Echo360 Mediasite
Screencast (online tools)	Screencast-O-matic Jing Screenr Overstream Skype with Call Recorder plugin
Screencast (software apps)	Camtasia Studio Adobe Captivate Active Presenter Snagit
Enhanced podcast	ProfCast Podreel Podcast Maker Chapter Master
Online presentation	VoiceThread Animoto

Course Design

- Establish Rapport Early!
  - Ensure a Comfortable, Confident, Supportive Environment
  - Post Biography (so that they know who you are)
  - Create Your Own Profile. Include interests and hobbies
- Get to Know Learners
  - Survey using an online data collection tool
- Set Guidelines and Expectations
  - Technology Requirements
  - Discussion of Digital Citizenship -- acceptable use, respecting privacy, no bullying, careful use of images, respecting intellectual property (giving citations and the like), no assistant commands (Alexa and others) to be made while online, and academic dishonesty
  - Engagement
  - Time Commitment
  - Communication Guidelines and How to Communicate (email, phone, chat, etc.)
  - Availability

N. B. It may be good to create an online quiz for some of these items to make sure students have reviewed the policies and for them (and you) to practice the technology components.

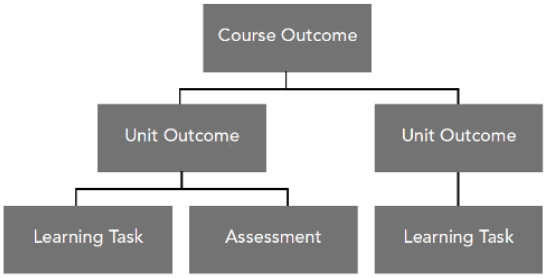
- Learning Outcomes
  - Clear Course Goals and Objectives (about 6)
  - Alignment with curriculum
  - Use action verbs for goals, nouns for products
  - Differentiate: Knowledge versus Skills Based Outcomes
  - Big Ideas
  - Cross-Cutting Concepts

Levels of Challenge or Mastery

	Dimensions			
	Factual	Conceptual	Procedural	Metacognitive
Create				
Evaluate				
Analyze				
Apply				
Understand				
Remember				

- Scope and Sequence
  - Units or Modules
  - Pacing

- Sharing and Curating Files and Resources
    - Syllabus – include a diagrammatic representation (as shown to the right)
    - Expectations
    - Policies
    - Assignments
    - Pre/Post Assessments
    - Online Resources (be mindful of copyrights and intellectual property)
        - Web sites
        - E-Books
        - Articles
        - Blog posts
        - Videos
        - Podcasts



- Communication
    - Announcements
    - LMS
    - Email
    - Phone/text
    - Learner to learner
    - Shared drive
    - “any doubts?” Discussions
    - Think-Pair-Share (ask your neighbor)

- Track Progress
    - Provide Feedback
    - Informs Instructional Practice
    - Helps Personalize Instruction to Learner
    - Learner Communications Among Each Other and the Teacher

- Learner Culture
    - Safe
    - Comfortable
    - Appreciated
    - Challenged at Appropriate Level

Check Accessibility

- Word
- PDF
- Audio – MP3
- Video – MP4
- Online Conversions
- Closed Caption
- Voice Over
- Avoid color references due to different monitor issues, vision impaired or colorblind students, etc.

How Teaching/Learning needs determine technology choice

- Do your outcomes clearly define what students are expected to know?
- Do outcomes define the required level of performance?
- Outcome
    - Assessment strategies
    - Activities
    - Content/materials
    - Skills
- Document how technology impacts students in achieving learning outcomes and compare to conventional instruction.
- Evaluate technology choices to determine next steps.

Check Question: Who might provide feedback about whether course resources, activities, and assessment strategies are supporting students during the learning process?

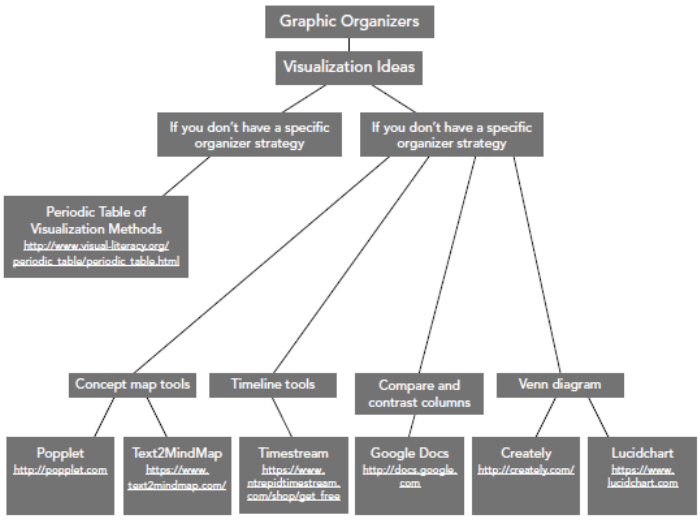
Answer: Students! Easy to take a poll.

Universal Design for Learning (UDL)

- http://www.cast.org/our-work/about-udl.html#.XqrtF6hKiUk
- https://enact.sonoma.edu/udl
- Provide course content and resources in several formats
- Give learners different ways to demonstrate what they have learned.
- Use multiple strategies to engage and motivate learners.
- Employ multiple representations: narrative, graphic, mathematical, diagram, table, pictorial, etc.

Multiple Representations

- Text, graphics, audio, video
- Khan Academy https://www.khanacademy.org/
- MERLOT https://www.merlot.org/merlot/
- PiktoChart https://piktochart.com/
- Visual.ly https://visual.ly/
- Plot.ly https://chart-studio.plotly.com/organize/home
- Graphic organizers
    - Popplet https://popplet.com/
    - Bubbl.us https://bubbl.us/
    - Create.ly https://creately.com/
    - Cmap https://cmap.ihmc.us/
    - Text2Mindmap https://tobloef.com/text2mindmap/
    - Mindmup https://www.mindmup.com/
    - Visual Literacy.org https://www.mindmup.com/ https://www.visual-literacy.org/periodic_table/periodic_table.html



Study Aids

- Study Flashcards https://www.studyblue.com/
- Test Study Aid Quizlet https://quizlet.com/

Documentation

Select document and file names that explain what the file is about.

Phys_ConstMotion_Hmwk_02_Intro

Alg1_Hon_Factoring_ Hmwk_01

Geom_Reg_CongTriang_Practice_04

Bio_Reg_Photosyn_Wksht_02

Phys_Force_NII_WhiteBd_04

Reading Inventory

MARSI Metacognitive Awareness of Reading Strategies Inventory

https://www.nwfsc.edu/wp-content/uploads/2017/10/Marsi-test.pdf

Collaborative Content Review

Category	Tools
Social bookmark tools	Diigo
Social reading tools	Google Docs eMargin Classroom Salon
Social reading strategies	Metacognitive Awareness of Reading Strategies Inventory

Calibrated Peer Review

- http://cpr.molsci.ucla.edu/Home

Checking Content for Originality

- Turn It In https://www.turnitin.com/

Learning Styles Inventory

- https://vark-learn.com/