ONLINE Radiochemistry Training and E-learning Tools – How Do They Work?

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Oregon State University
Radiochemistry at Oregon State University

• Long tradition of excellence (Norris, Wang, Thomas, Sugihara, Schmitt, Daniels)
• Began with Manhattan project scientists after WWII

• Emphasized radiotracers in the 50s, NAA (Lunar Project, when Wang built 1MW TRIGA reactor)
• Nuclear chemistry (Loveland’s) dominated in the latter half of the century

Current status:
• W. Loveland, Chemistry (nuclear chemistry/physics, synthesis of heavy elements)
• M. Nyman, Chemistry (inorganic/cluster chemistry)
• A. Paulenova, NSE (chemistry of materials and processes for fuel cycle)
• In total, 14 faculty at NSE with focus on: detector development (3), forensics (1), radioecology (3), radiobiology (2), dosimetry (2), reactor physics, reactor design...
- Applied chemistry - fundamental chemical science to solve problems
- Modern approaches and research tools (somewhat unique)
- For chemistry of radioactive materials and extreme environment conditions
What a radiochemist (radio-chemist) needs to know?

- **Nuclear Chemistry** ≈ Nuclear Physics (decay, nuc/rxs)

- **Radiation Chemistry** = not a radiochemistry; similar to photochemistry and thermochemistry; (damage upon irradiation)

- **Radiochemistry** = Applied Chemistry (fundamental chemistry applied to radioactive materials)

- Chemistry of Actinides and Fission Products (advanced inorganic chemistry)

- Physical Chemistry (thermo, kinetics, quantum)

- Analytical Chemistry

- Nuclear and Radiochemistry, including lab skills
Degrees at OSU:

- OSU is a “research university” (30k students, many research centers)
- Dept of Chemistry: B.S., M.S. and Ph. D. in Chemistry
- School of NSE: B.S., M.S. and Ph. D. in Nuclear Engineering or Radiation Health Physics

“Radiochemistry Program at NSE” includes these graduate “core” courses:

- NSE 531 Radiophysics or Ch 418/518 Nuclear Chemistry: nuclear properties, nuclear structure, radioactive decays, nuclear reactions, fission, interaction of radiation with matter, Ch 416/516
- NSE 536 Advanced Radiodetection, and nuclear instrumentation.
- NSE 516 Radiochemistry (Actinide and FP chemistry, environmental and biomedical application of radioactivity)
- NSE 519 Radiochemical Methods (selected methods in radiochemical analysis)
- RHPs: Radiobiology, Radioecology, Dosimetry, Shielding Safety...
- NEs: reactor design, thermal hydraulics, fuel cycle, neutronics, computing
A decade’s worth of learning: evolution of delivering an online graduate degree in Radiation Health Physics and current status

• School of Nuclear Science and Engineering (NSE) was founded more than 60 years ago, as a Nuclear Engineering/College of Engineering
• Later RHP major was added
• Online courses at our School started 2000-2001
• Master’s degree in Radiation Health Physics added in 2004, when the Ecampus, a central university administrative unit for online teaching and learning was born.
Online program and Ecampus

• Ecampus administirates the online programs

• Online Graduate Program in Radiation Health Physics (MHP) at our School of Nuclear Science and Engineering:

• MS program is usually full time on campus as it requires thesis research work (very rare case for a person from practice to come just for MS defense)

• MPH = Master in Health Physics = a non-thesis master degree, based only on coursework

• Some students come to School after taking all courses online for ~5-6 months to make their thesis research and improve their degree to MS

• MPH program in RHP is identical to both the on-campus and online programs:
NSE Radiation Health Physics Program

**REQUIRED:**
- Radiophysics (= nuc science fundamentals)
- Radiobiology
- Radiochemistry
- Advanced radiodetection methods
- Radiochemical analytical methods
- Radioecology
- Radiation shielding and external dosimetry
- Internal dosimetry
- Applied radiation safety
- Applied radiation safety
- Nuclear rules and regulations
- Seminars

**ELECTIVE:**
- Forensics
- Nuclear Security
- Therapy and Imaging
- Radionuclides in Life Science
- Fuel Cycle (required for NE, elective for RHP or Chemists)
- Nuclear Detection

- 45 credit hours for MPH degree either on campus or online
- for MS degree 9 from 46 credit hours are replaced with the research credits (thesis)
**NSE Radiation Health Physics Program**

**REQUIRED:**
- Radiophysics (or Nuclear Chemistry)
- Radiobiology
- Radiochemistry
- Advanced radiodetection methods (on campus)
- Radiochemical analytical methods (on campus)
- Radioecology
- Radiation shielding and external dosimetry
- Internal dosimetry
- Applied radiation safety
- Nuclear rules and regulations
- Seminars

**ELECTIVE:**
- Forensics
- Nuclear Security
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NSE’s equipment for online allows using virtual laboratories and other interactive technology, but we want students to come and touch radioactivity, they come for condensed classes on campus (labs here, reports and HW home) –hybrid courses.
Oregon State Ecampus delivers a variety of educational opportunities for people interested in personal or professional enrichment and who prefer the flexibility of programs delivered online and off-campus.

**Our online programs**

- Undergraduate programs (bachelor's degrees)
- Graduate programs (master's degrees, graduate certificates, doctorate programs)
- Unique courses or programs (not full degrees)
  - Chemistry courses
  - Foreign language courses
  - Minors

Visit any of the sections above to learn more about our online programs, or request more information.

**Request information**

**Benefits of studying online with Oregon State University**

- All classes are developed by Oregon State's renowned faculty, who are known worldwide for their research, expertise and innovation.
- Oregon State is regionally accredited by the Northwest Commission on Colleges and Universities.
- Online students receive the same diploma and transcript as OSU's on-campus students.
- Students can study from anywhere in the world with an Internet connection.
OSU’s Online Experiment

- OSU Ecampus consistently ranks best among US online education providers:

- Eleven independent organizations ranked our Ecampus an American “Best Online College” based on:
  - academic quality
  - student engagement
  - faculty credentials
  - degree selection
  - student satisfaction

- Students earning Oregon State degrees online receive the same diploma as their on-campus peers.

- Ecampus’ award-winning website features mobile-responsive design
NSE’s Online Experiment

- Initial online learning consisted of:
  - Co-mingled distance and on campus
  - Recording lecture, posting content on internet and asking students to view and follow instructions.
- Technology, which was state of the art at the beginning of the online program, rapidly became obsolete.
- Occasional transmission interruptions
  - Videotape archives
- Challenge to teach NE online -> remotely access/run codes
  - Shielding class
  - Running ISOSHLD/MCNP
  - NE online closed -> only RHP
Distance education equipment – the early years

Classroom converted into distance learning center
Early Phase Delivery mode

Live via web streaming or delayed archive
Enrollment in Graduate Health Degree Program

- RHP Grad
- eRHP Grad

[Graph showing enrollment trends from 2000 to 2016 with two lines representing RHP Grad and eRHP Grad.]
Online Experiment at OSU NSE

- Remote viewability of the live class could be a challenge
  - Each student has different PCs and internet speed
  - Clarity of complex, extended equations
- Examinations
  - Proctor/not proctor/online examinations (trivia/choices)
- Involving distance students (give them in-class feeling)
  - Online discussion groups/Shared projects
- Change of learning management platform: from Blackboard to Canvas
- Understanding difference in on-campus and E-campus way of learning, leading to necessity to change the course delivery
Faculty Support and Training:

- Resources include training and workshops, in person or online
- Small grants to develop new or redesign current courses
- Instructional designers help from start to finish
- Ecampus provides technical assistance with lecture pre-recording, adding subtitles is available
- Special events: annual retreat/workshop
- Development and application of best practices funded by student tuition
Research in the online teaching and learning:

Research focus:
- Quality of education
- Effective administration in education
- Optimization of course accessibility
- Adult learners

Research funding:
- Partially by tuition
- External grant from Dept of Education
Example of course page
Example of CANVAS LMS on iPhone on Android systems

Canvas is a learning management system that can work on multiple devices.
OSU Online Statistics – 2016

• 50% of students would likely not enroll via an on-campus program. They want an online program.
• 44% of students utilize personal funds to finance their education.
• 1/3 of students research programs / institutions via a mobile device.
• 68% of students chose programs/institutions within 4 weeks
• Typical age of online students is 29 for UG and 33 yrs for grad (dropping).
• Nationally 1 in 4 college students is enrolled in an online class (UG + G).
• Students typically enroll for a program 50-100 miles from their home.
• Online students visit their institution’s campus once a year on average
• 69% of graduate students felt the investment was worth the money.
• 55% of online students decided the program first, then the school.

a2016 Online college students comprehensive data on demands and preferences collected by Learning House and Aslanian Market Research
Summary / Issues

• Online education is definitely working
• Some “growing pains” are inevitable

Questions?
Technology Integration and Mobile Course Design

Education Advisory Board
COE Forum
Lindsay Chapman Research Associate
Anna Krenkel Research Manager
Synchronization amongst Online Learners through Mobile Technology

• The PC/laptop based system are only a platform for professors to disseminate information and student to upload their assignments.

• Mobile technology- the most effective:
  – gives students the ability to respond to information from instructors
  – enhances synchronization of online learning through increased accessibility to online learning tools for both students and professors,
  – students can always access class materials (e.g., write a discussion post, check grades, take quizzes, communicate with group project members); this integrates learning into daily life.

• In combination with scheduled class time, this constant contact removes the sense of isolation that online students may experience.
Synchronize Online Learners

Unify Classroom with Real World
- Bring diverse experiences to class interaction as students participate from different locations (e.g., geographic location, work, home)

Learn Together
- Meet as a class virtually at the same time
- Live tweet, text, or instant message during course time to remove isolation

Communicate Openly
- Allow students to respond in real time to faculty
- Respond with feedback to content that other parties create
Implement Other Online Technologies to Give Faculty More Instructional Options

• **Institution B** employs telepresence technology for online instruction to simulate the face-to-face classroom experience.
  • Graduate courses employ this technology most frequently, but it is increasingly available in undergraduate courses.
  • Students can access telepresence lectures and presentations from mobile devices.
• **Institution A** offers Inkling online textbooks.
  • This program allows users to virtually highlight and comment on content.
  • Professors and students can share sections each highlighted and comments on textbook content; students can also see what professors highlight in assigned readings and focus on that content.
  • Instructors may track how often and the amount students read.
• Course analytics can provide information on student participation in class, their grades and more

• Useful for instructor in dealing with grade questions or participation scores
Examples of Mobile Integration into Learning

Twitter (social networking site)
- Backchannel for constant student contribution to class
- Dissimilar ideas and thoughts of diverse student body is part of class value
- Grade participation on Twitter

Ways (traffic application)
- Students created a social map of activity on campus
- Synchronizes students outside of class

LMS
- English professors request students submit story prompts via mobile technology during class
Survey Faculty on Technology Successes, Failures, and Preferences

- Centers for teaching and learning typically survey faculty annually on all aspects of mobile integration; including:
  - **Training**
  - Ease of using devices
  - Administration’s support of mobile course design
  - How and how often faculty employ mobile technology in class
  - At Institution A, faculty find autonomous student review of lecture material via mobile enhances class discussions. Mobile polling saves professors time compared to traditional quizzes and provides instant feedback on student knowledge they can immediately address during class.
Survey at Small University (A):

Institution A Faculty Survey Results

- 89% Faculty bring mobile device to class
- 84% Faculty who regularly use device in class
- 50% Faculty use device in every class
- 85% Faculty rate mobile learning a success

Source: Institution A Website
Incorporate Mobile Format Questions in Course Evaluations (get Student Feedback)

• Professors at Institution D modified the final course evaluation to ask about LMS access, and plan to ask specifically about mobile use in future years.

• Professor at Institution E gathers student feedback on mobile technology throughout the course through casual check-ins with students, a midpoint course evaluation, and a final course evaluation.

• Student feedback at Institution A focused on improved speed and ease of communication with faculty. Students appreciated the instant feedback from faculty via mobile technology.

• Student feedback at Institution B indicates increased interest in online learning that will more successfully replicate a classroom experience.
Member institutions were approached with questions:

- What administrators or departments participate in mobile strategy discussion?
- How do administrators decide which technologies to support?
- How do faculty members incorporate mobile technology for online, hybrid, and/or in-person courses?
- At a course-level, what learning tools are most common?
- Are the faculty members encouraged to make mobile technology a priority in the classroom?
- How does training of faculty and students incentivize technology engagement? **What type of trainings** do faculty participate in?
- What metrics do contacts collect to gauge faculty and student satisfaction with mobile capabilities in online courses?
iPad Learning Community Closure

- **Institution E** suspended its iPad Learning Community after two years because faculty and students determined that a curriculum built around a technology did not achieve learning outcomes.

- During class, students had to multi-task between note taking, Twitter participation, and content quizzes.

- This was cumbersome to the students and the required preparation was burdensome to professors.
Directors of online education and eCampus at 4-year institutions that offer online education:

<table>
<thead>
<tr>
<th>Institution</th>
<th>Location</th>
<th>Approximate Institutional Enrollment (Undergraduate/Total)</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institution A</td>
<td>South</td>
<td>3,600 / 4,400</td>
<td>Master's Colleges and Universities (larger programs)</td>
</tr>
<tr>
<td>Institution B</td>
<td>Midwest</td>
<td>13,500 / 15,400</td>
<td>Master's Colleges and Universities (larger programs)</td>
</tr>
<tr>
<td>Institution C</td>
<td>Midwest</td>
<td>9,300 / 10,600</td>
<td>Master's Colleges and Universities (larger programs)</td>
</tr>
<tr>
<td>Institution D</td>
<td>South</td>
<td>15,100 / 16,700</td>
<td>Research Universities (high research activity)</td>
</tr>
<tr>
<td>Institution E</td>
<td>Mid-Atlantic</td>
<td>26,500 / 37,200</td>
<td>Research Universities (Very High Research Activity)</td>
</tr>
</tbody>
</table>
NSE Online Course Examples
Online Essentials at OSU

1. Faculty work with instructional designers & learning technologists from start to finish
2. All required syllabus information is present:
   a. Including learning outcomes and special curricular instructions.
   b. Online courses meet the same learning outcomes as any other modalities.
3. Outcomes, course content, learning activities, and assessments are aligned in terms of content and cognitive level.
4. Courses are organized with student-centered navigation, using a units/themes/week-by-week folder structure
5. Three forms of interaction are present, in some form, in each online course:
   a. Student/content (such as discussion board, readings, video, research projects)
   b. Student/instructor (such as discussion board, response to assignments, inclusion of a Q&A forum the instructor will facilitate)
   c. Student/student (such as discussion board, group projects, peer reviewed assignments)

http://ecampus.oregonstate.edu/faculty/courses/Ecampus_Essentials.pdf
Online Essentials at OSU

6. Appropriate tools are used for their intended purposes.
   a. Tracking assignments and student progress create an archive of the class once it is over and serves as a reference in case of a clerical error.
   b. Tracking assignments and student progress helps determine if a student has been “present” in an online class.

7. Copyright permissions for any borrowed images, textual content, film, or other source materials have been requested.

8. Audio and visual quality are clear for all multimedia, and multimedia is designed and produced for an audience of online students.

9. Course content is posted in accessible format (such as a PDF file with document tags, alt text provided for images, captions or transcripts for lectures, and PowerPoint presentations with sufficient contrast between the background and text).

10. Information about learner support is provided, such as the Start Here Module in the Canvas course template, which includes a link to student resources.
• Example of a module structure for online course
• Instructor and student view are slightly different
Example of a module structure for online course
Instructor and student view are slightly different
• Example of a discussion board for online course
• Instructor and student view are slightly different
Example discussion board

Week 3 - Discussion

In section 3.1, the NRC Video - *Establishing an Independent Regulator*, the historian Tom Wellock (@ 4:15 min in the video), posed a question; Congress had established the NRC to be an independent agency, but how independent was its staff? Robert Pollard resigned because the NRC did not heed his concerns about reactor safety. He aired his concerns in an interview with 60 minutes. His 60 Minutes interview, along with congressional investigations regarding the treatment of whistleblowers, spurred the NRC to have policies to encourage differing professional opinions without fear of retaliation. However, many of the NRC's actions insinuate that the NRC inherited the AEC's Pro-nuclear bias and has become a promoter of nuclear power. One take home point is Tom Wellock's statement, "It takes more than legislation to be independent".

With this in mind, watch the following argument against recent NRC actions and comment (2-3 sentences, or more if you want), on whether you believe the NRC to:

1. have a bias as a nuclear promoter, and
2. if this is of concern in their role as regulator.

*Video - Global Research TV Nuclear Regulatory Commission Strips Whistleblower Protection*
Example assignment

In the NRC Video - specifically pay attention to how the TMI accident impacted the regulatory environment and what, if any, new regulations came out of the investigation.

Moments in NRC History: Three Mile Island – March 28, 1979

Moments in NRC History: Three Mile Is...
Week 3 - Readings

These were provided as links in the module, but listed here for easier access:

1. Three Mile Island Accident
2. A Short History of Nuclear Regulation, 1946-2009
3. The Nuclear Regulatory Process

Optional Readings

1. Cash, Chapter 7 & 8 (pgs. 84-101)
• Quiz analytics can provide information on student success rate per question
• Useful for instructor in determining appropriate level of difficulty of quiz material
Remaining challenges

• Laboratory experience
  – Radiation Detection Instrumentation
  – Radiochemistry
  – Nuclear Reactor laboratories
• Is virtual reality the answer?
• Constant need for renewal and upgrade
  – Online content needs to be refreshed and upgraded on a regular basis
  – Technology always changing
NSE/OSU’s Online Experiment

• Even with such frustrations, means to educate students continues to improve.
• More Learning Management Systems (LMS) providers offer customizable platforms to enable geographically and temporally separate students to collaborate while interacting through a variety of devices.
NSE/OSU’s Online Experiment

• Learning modules can be designed to be broadly accessible to students.
• Prepackaged software can provide educators and trainers with instant and archivable information regarding student performance on assignments.
In recent years, the widespread adoption of new media, such as mobile communication technologies and social networking applications across the education sector is a fast-growing factor. Development of new mobile technologies and their accessibility are driving vectors in changes in society. These changes have a great impact also on universities, which are embracing these media and struggling with their implementation for teaching, learning and professional development purposes. They have to be a student-focused tool that will provide general information services as well as native integration with curricular and administrative systems (http://is.oregonstate.edu/project-management/mobile-app). “Availability of this app will allow students to get more work done via phones and tablets, devices that they increasingly depend on as their primary connection to the internet. The goal of this new service is to improve the user experience for current and prospective students, increase student engagement and retention, and contribute to student success”.
• Just recently limited to Facebook, Youtube and Twitter, serving as the main tools for socializing with the current students and alumni with the goal to attract new students, the mobile apps become a learning platform now.

• While some students view social and transactional networking applications mainly as social spaces rather than for learning, there is a growing group of students who adopted to their mobile phones much better and mastered the education application developed and adopted by their university.

• It is evident that the use of mobile media is an increasingly integral aspect of people’s learning, work and social lives.

• There are many factors that affect quality of a course in both teaching modes, however, the online courses have quite different features. The factors most cited include the course design, delivery and content, technology, institutional infrastructure, faculty readiness for online teaching, student readiness for online learning and support. Based on experience at School of Nuclear Science and Engineering, the role of these factors in the radiochemistry training for both the on-campus and ecampus programs is discussed.
OSU’s Best Practices for Online Course Design

http://ecampus.oregonstate.edu/faculty/courses/Best_Practices_Online_Course_Design.pdf
<table>
<thead>
<tr>
<th>General Standard</th>
<th>Detailed Standards</th>
<th>Why it's important</th>
</tr>
</thead>
</table>
| Course Overview and Introduction*       | • Course structured into intuitive sections (weeks, units, etc.), with all materials for each section housed within that section  
• Intuitive and logical navigational structures are present  
• All OSU-required syllabus information is present (instructor’s name, OSU email address, contact information, grading policies, etc.)  
• A course schedule with due dates is provided (within the syllabus or as a separate document)  
• Syllabus also includes information for online students, such as netiquette requirements and technical support info  
• Required special curricular instructions are provided for Bacc Core, WIC, and DPD course                                                                 | • Clear navigation and overview/introductory materials help students find what they need, reducing frustration.  
• They help students avoid missing important instructions or assignments.                                                                                                                                 |
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<tbody>
<tr>
<td>Learning Outcomes</td>
<td>• Course outcomes are equivalent to on-campus offerings of the same course</td>
<td>• An OSU course is an OSU course, regardless of modality.</td>
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<td>• Course outcomes are measurable and observable (avoiding ambiguous verbs such as “understand,” or “comprehend”)</td>
<td>• Learning outcomes are the roadmap for the course.</td>
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<td>• Weekly learning Outcomes and a weekly introduction is provided</td>
<td>• Clear outcomes tell us exactly what should be covered and at which depth.</td>
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<td></td>
<td>• Weekly Outcomes help students understand how daily coursework relates to course outcomes.</td>
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| Assessment and Measurement    | • Grading policies are stated clearly (such as stating grading criteria or supplying a rubric)  
• Assessments (assignments, exams, projects, discussions, etc.) are aligned with course outcomes, weekly Outcomes, content, and cognitive level  
• All assessments are collected within Canvas  
• Assessments are varied, including formative and summative assessments  
• If proctored exams are desired, proctoring requirements are established with the testing coordinator and communicated in the syllabus | • Clear expectations help students succeed.  
• Assessments should be aligned with outcomes to ensure that outcomes are being met.  
• Collection within Canvas is important for record-keeping and financial aid purposes.  
• Using a “grade early, grade often” approach helps students monitor progress and helps to close the distance gap. |
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| Instructional Materials | • Instructional materials are in alignment with the course outcomes and weekly Outcomes  
• Instructional materials are appropriately cited  
• Copyright permissions for any borrowed images, textual content, film, or other source materials have been requested; in cases where permissions are denied or when fees are not feasible, the source materials in question are removed. Videos are not streamed until permission is granted.  
• Instructional materials are presented in formats demonstrating best practices for distance education  
  o Appeal to a variety of learning preferences (readings, audio, visual, multimedia, etc.)  
  o Lecture content is brief (<20 mins.)  
  o All recordings are designed for Ecampus students (no recording of in class material)  
  o Audio and visual quality must be clear for all multimedia  
  o Lectures are not required; it is fine to use existing materials such as links to open education resources, readings, activities, etc. | • Instructional materials should prepare students for assessments.  
• Copyright laws must be followed.  
• Research shows that using best practices for presenting instructional materials helps students learn more effectively (for example, using active learning strategies, where students perform meaningful actions involving course content and then reflect on learning).  
• Materials for online classes should be created for the audience of online students. Online students feel at a disadvantage when they are merely given recordings of on-campus activities or lectures |
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<tbody>
<tr>
<td>Learner Interaction and Engagement</td>
<td>• Learning activities are aligned with course outcomes and weekly learning Outcomes</td>
<td>• Research shows that active learning opportunities, as well as the three forms of interaction, are effective in online classes and for adult students.</td>
</tr>
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<td>• Opportunities for active learning (meaningful action + reflection) are provided</td>
<td>• Response times help create a structure for interaction.</td>
</tr>
<tr>
<td></td>
<td>• The instructor’s response times for communications and grading are clearly stated</td>
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<tr>
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<td>• Three forms of interaction are present in the course:</td>
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<td></td>
<td>o Student/content (such as discussion board, readings, video, research projects)</td>
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| Course Technology    | • Appropriate tools are used for their intended purpose (assignment tool for homework, exam tool for exams, rather than having students email assignments, for example)  
• Tools outside of Canvas are used in ways that comply with FERPA regulations and student completion of work is logged within Canvas  
• Grades are communicated to students using the Canvas grading center  
• Links to outside resources are functional | • FERPA adherence is required by law.  
• Tracking student participation and progress within Canvas helps us keep records and helps the financial aid office determine eligibility. |
| Learner Support      | • Information about learner support is provided, such as the Start Here Module in the Ecampus Canvas course template, which includes a link to Ecampus Student Resources  
• Library Guides are embedded in Canvas course shells, when appropriate | • Access to student services sometimes differs for campus and Ecampus students.  
• Online student fees provide access to Ecampus-specific student services, such as NetTutor. |
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<tr>
<td>Accessibility</td>
<td>• Simple font and color schemes are used</td>
<td>• Providing accessible content is required by law.</td>
</tr>
<tr>
<td></td>
<td>• Canvas pages are structured in an accessible format (such as using heading styles)</td>
<td>• Using a universal design approach during course development is better for students, is more inclusive for diverse learners, and is more efficient than retrofitting a non-accessible course.</td>
</tr>
<tr>
<td></td>
<td>• Visuals, such as PowerPoint presentations, contain sufficient contrast from background color to foreground text</td>
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<tr>
<td></td>
<td>• Audio and video materials have captions or transcripts available</td>
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<tr>
<td></td>
<td>• Documents are posted in accessible format (such as a PDF file with document structure tags, and images with alt text)</td>
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