My "Top 5" features of superior online course design and instruction

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## Course Design vs. Instruction

You can *design* an awesome online course, only to have it fall completely flat with poor *instruction* — and vice versa!



# 5 key attributes of effective online course *design*

Design	Design "backwards"  •Identify learning outcomes, then determine how you will assess learning, then plan content and experiences
Select	Use the right "tool" for the job  •Synchronous? Asynchronous?  •Think "flipped classroom"
Engage	Provide for authentic, caring and robust engagement —  •Student – instructor •Student – student •Student – content
Promote	Promote active learning
Test	Make sure your course is accessible  •Students need the right technology, stable access to the Internet, and a safe and quiet workspace  •Proactively consider any special learner needs

## Some course *design* resources



Learning Designers!



Penn State's Remote Teaching site – <a href="https://remoteteaching.psu.edu/">https://remoteteaching.psu.edu/</a>



Backward Design (Wiggins and MacTighe) –

https://educationaltechnology.net/wp-content/uploads/2016/01/backward-design.pdf



Hours of Instructional Activity Equivalents –

https://weblearning.psu.edu/resources/penn-state-online-resources/HIA/



Strategies for Creating Engaging Synchronous and Asynchronous Learning Environments –

https://weblearning.psu.edu/strategiesfor-creating-engaging-synchronous-andasynchronous-learning-environments/



Quality Matters Course Design Rubric – https://www.qualitymatters.org/qaresources/rubric-standards/higher-edrubric

# 5 key attributes of effective online course *instruction*

Coach	Provide ongoing guidance, support, and motivation to succeed
Be Present	Be proactive AND reactive! Provide responses within one business day
Give Feedback	Provide meaningful, timely feedback on student work using clear and concise language
Communicate	Make sure your students know what <i>they</i> are supposed to be doing and what <i>you</i> are doing throughout the course
Prepare	Have a backup plan in case something goes awry

## Some course *instruction* resources



Learning Designers!



Best Practices and Expectations for Online Teaching – <a href="https://facdev.e-education.psu.edu/teach/bestpractice">https://facdev.e-education.psu.edu/teach/bestpractice</a> s



Peer Review of Online Teaching – <a href="https://facdev.e-">https://facdev.e-</a>
<a href="education.psu.edu/evaluate-revise/peerreviewonline">education.psu.edu/evaluate-revise/peerreviewonline</a>



Faculty Competencies for Online

Teaching –

<a href="https://facdev.e-education.psu.edu/sites/default/files/">https://facdev.e-education.psu.edu/sites/default/files/</a>
OnlineTeachingCompetencies FacEng
agementSubcommittee.pdf



Managing Your Online Course – <a href="https://facdev.e-education.psu.edu/teach/manage">https://facdev.e-education.psu.edu/teach/manage</a>



Web Learning @ Penn State https://weblearning.psu.edu/resource s/penn-state-online-resources/

## Questions?







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## Supplemental Resources

- Adding Engagement to Your Classroom <a href="https://facdev.e-education.psu.edu/node/446">https://facdev.e-education.psu.edu/node/446</a>
- Do It Yourself Video Recording <a href="https://facdev.e-education.psu.edu/node/446">https://facdev.e-education.psu.edu/node/446</a>
- Example of a Zoom document camera hack for your online classroom
  - https://www.unr.edu/tlt/instructional-design/instructional-technology-resources/web-conferencing/zoom/document-camera-hack

## TOP 5 FEATURES OF SUPERIOR ONLINE TEACHING

PROFESSIONAL DEVELOPMENT TECHNIQUES APPLIED TO UNIVERSITY COURSES







#### **OVERVIEW OF PROFESSIONAL DEVELOPMENT**



- COMET Program
  - MetEd Website (www.meted.ucar.edu)
- Professional Development
  - Earth System Science
  - Geospatial Topics
- Team approach to training
  - Instructional design
  - Scientific subject matter experts
  - 3D graphic designer
  - Web developer
- Universities 40% of our 650,000 registered users

#### #1 - Make your students do something



- Competition for your students' attention
  - Engage them in the learning process
  - Questions that require them to chime in with their answers
    - Collaborate in breakout sessions
    - Report back their findings
- Connection, Engagement, Assessment

#### #2 - Develop performance objectives



- What do you want the students to be able to do after this class experience?
  - Include ability to explain the importance of what was covered
  - How can you measure their success?

#### #3 - Use real -world examples



- Geosciences offer excellent real-world examples to bring into the classroom
- Case studies
  - Teaching content through events
- Ask students to bring in examples
  - Photos that depict something covered in the class
    - Students work in groups to explain what is depicted in the photo

### #4 - Incorporate Simulations



- Scenario that requires students to make decisions
- Include consequences for poor decisions
- Provide a sense of urgency
- Feedback can incorporate reinforcement of the concepts used in the simulation

### #5: Bring it all together



- What is the point of covering the topic you are covering?
  - How does it fit into the rest of the course?
- Also, start the next class with a summary of the this discussion and link it to what comes next..

Thank you for your attention.

The COMET modules that demonstrate some of the techniques mentioned include:

- Situational Awareness in The Fire Environment
- Fire Weather Forecasting: Clear Communications, Second Edition

To learn more: www.meted.ucar.edu

Geospatial Topic Page:

https://www.meted.ucar.edu/training detail.php (click on topics/geospatial)

Webinar: How to Be Alone Together...Teaching Geosciences in Quarantine

https://www.youtube.com/watch?v=dCMAiSEjhPY&list=PLsyDl aqUTdFrvYmwmsaZRiZ-Sw5ueKvs