DOE Online Course Model: Dana Fowler

Distance and Online Education (DOE) has partnered with Dana Fowler, Associate Professor (Instructional) in the College of Nursing, to share this online course model. Please see below for assignments that Dana gives students using online collaborative documents, the instructions she provides, and sample student submissions.

Boost Student Engagement and Motivation

Would you like to improve student interactions in your online course? The DOE Effective Instruction Guide shares strategies to increase online student engagement and motivation. DOE staff can assist you at all stages of course development — from initial conception to final implementation — following evidence-based best practices. Instructional designers will partner with you to provide customized course design recommendations that fit your teaching style, course goals, and address your students' needs.

Case Studies

Case studies are common in Dana's courses. Student groups share decisions in a collaborative online PowerPoint document. The assignment instructions are explicitly aligned with module learning objectives — for example, module learning objective #5 is directly mentioned in the assignment instructions.

Case Study Assignment Instructions

Dana's case study assignment includes the following learning objectives for students:

1. Define the terms genomics and pharmacogenomics and their use in drug therapy.
2. Explore the ethical questions that arise around pharmacogenomics.
3. Discuss factors that alter pharmacodynamics and pharmacokinetics in older adults.
4. Discuss factors that alter pharmacodynamics and pharmacokinetics in individuals experiencing acute and critical illnesses.
5. Use the Beers Criteria and STOPP/START Criteria in prescribing for older adults.
6. Apply principles of geriatric pharmacology to optimize medication management in older adults.
7. Utilizing the tools above, critically evaluate medication prescription for older adults and create a deprescribing plan to reduce polypharmacy in this population.

Group Instructions

1. Work as a group to critically look at the polypharmacy of each of the cases presented.
2. Use the case example provided in module one as your template (you may need to go into presentation mode to hyperlink or cut and paste into your browser to open). Use up to 6 slides to present your information (you may use a 7th slide for citation if needed). Place slides underneath your group title slide.
3. Use Beers criteria and geriatric medication management information provided in class to support your decisions.
4. Cite all resources used to make your decisions.
5. 20 points will be provided for completion. All group members are expected to participate.
6. You are to review all three group's postings and comment. This content could be used for future testing — hint hint.
7. This needs to be completed by 11pm on Sunday June 18.

Case Studies: Practical Application

Following the instructions slide, each group starts with a slide in the collaborative online PowerPoint where they are provided a link to their case inside ICON. Students then create slides to report out final recommendations from their group.

Dana's students practice real-world collaboration while also producing a shared document with each group's conclusions for easy download and later reference. A sample student group submission (Group 1) includes a Final Med Rec table, a Rationale section, and a Citations section with sources such as the 2023 American Geriatrics Society Beers Criteria and peer-reviewed pharmacology literature.

Case Studies: Instructor Feedback

Dana is able to comment on specific slides to start a conversation with student groups. Using the PowerPoint comments feature, Dana can pose questions and students respond directly within the document. This allows for threaded, asynchronous conversation tied to specific slide content.

Example: Dana posed the question 'Thoughts on vitamins and supplements? I often see medication lists with 8-10 additional vitamins and supplements. It is hard to know what to do with all of these medications. The guidelines are vague...any thoughts?' Students then responded in-thread with evidence-based reasoning about supplementation and shared decision-making with patients.

Discussions

Dana uses shared online PowerPoint documents to replace her use of ICON discussion boards. She assigns different prompts for each student as they build shared knowledge. Students see document edits in real-time, which adds to the sense that they are working together in their asynchronous course.

Visual Aids

PowerPoint makes it easier for students to add visuals to their discussion contributions. For example, in a Hypertensive Urgency vs. Emergency Class Discussion, each student uses three slides to answer their assigned questions, and may include clinical decision-making flowcharts and diagrams.

Visual Analysis

Dana is able to add x-ray scans in her PowerPoints and then ask student groups to diagnose what they see. Each group has a different slide in the same PowerPoint, which makes for efficient class-wide sharing.

Image-Based Discussion

PowerPoint makes it easy for Dana to distribute different x-rays on separate slides for student groups to analyze. A sample student group response (Group 6, Activity 1) demonstrates a structured chest x-ray analysis including:

- AP/PA, rotation, penetration, inspiration assessment
- Presence of tubes or lines
- Mediastinum, trachea, aorta, and pulmonary vessel review
- Bone and thoracic cavity assessment
- Lung and tissue abnormality review
- Soft tissue changes
- Final diagnosis: Normal lungs

Grading and Feedback

In addition to commenting on specific slides, Dana can use the Version History feature within online PowerPoints to see which students are actively working inside the document. Dana mentioned that this helps her identify 'leaders, followers, and closers.'

Version History

The Version History panel shows a timestamped log of which students added, removed, and modified elements on each slide. This gives Dana insight into individual participation within the collaborative document, allowing her to assess contribution patterns even in a group submission context.