

Submit Grant Proposal | VR@Illinois

Submitted by:

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1. Name

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2. Email

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3. Your Status

Faculty

4. Your Department

Women, Children and Family Health Science

5. Provide a brief summary of the VR/AR project that would be funded by this grant proposal

The virtual reality project for the College of Nursing on the Urbana Champaign Campus will entail incorporating Sharecare, 3D Organon, and haptics into anatomy and pathophysiology courses to augment classroom lecture. VR and haptics transcends diverse learning styles and allows for repeated attempts without penalty. This project will also entail recruiting students to participate in research to demonstrate the effectiveness of using VR and haptics in learning anatomy and pathophysiology concepts.

6. How much funding are you requesting?

\$12,000

7. Provide a brief preliminary budget of how the funds would be used

The funds will be used to purchase 2 VIVE headsets at \$1100; 2 3D Organon Apps at \$400; 2 Sharecare Apps (free); 2 Haptic gloves at \$1000; 2 HP Mobile Workstations at \$1749; 2 Alienware 34.14 IPS LED Monitor Screens at \$1299.99; miscellaneous - shipping, tax, installation \$902

8. Describe the anticipated outcomes of your project.

The anticipated outcomes of this project will be that nursing students will have a greater understanding of anatomy and pathophysiology as evidenced by improvement in pre- to post-test anatomy and physiology scores on quizzes and exams, obtain higher pre- to post-test anatomy and pathophysiology scores when using VR and haptics compared to usual classroom lecture, fewer students will decelerate compared to prior student cohorts, and student satisfaction with learning anatomy and physiology will improve. Finds from this project will be published and used to substantiate the need for future funding.

9. What is the proposed timeline for your VR project?

The entire project will take approximately 11 months to complete. After receipt of funding and the is equipment purchased, faculty will be trained in use of VR and haptics. Then a proposal will be submitted to UIC and UIUC IRB for approval to conduct research with students. Students will be randomly assigned to usual classroom lecture or to classroom lecture augmented with VR and haptics. Students will alternate their classroom lecture with VR and haptics for four months. Students will complete anatomy and pathophysiology pre- and post-tests quizzes and exams throughout the semester. Data from pre- and post-test anatomy and pathophysiology quizzes and exams will be analyzed. Preliminary findings from this study will be published and used as evidence to apply for future funding.

10. Additional information

no answer provided