



香港城市大學
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Computer Simulation & Visualization Aided Teaching of Biophysics Courses

Project Number: 6000465

Principal Investigator: Dr Jun FAN

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Abstract:

This project is to utilize computer simulation and visualization tools in order to enhance the outcomes-based teaching and learning of physics courses, specifically Biophysics. For physics students who have not taken any biology before, this interdisciplinary course will serve as their first and through which they will encounter an enormous amount of material replete with new and relevant terms in biology. Learning concepts that are very different from physics challenges the imagination. The course will make use of visualizations and demonstrations to create complete pictures of cellular systems and to combat learning difficulties. I will encourage students to form groups, and to simulate, and visualize biological systems that capture their interests. Meanwhile, I will provide guidance and tutorials on individual projects as students gain hands-on experience of modeling and data analysis.