

## Guest Editorial

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Applied Bioscience and Bioengineering education has expanded to include many sub-disciplines. Several new academic departments and programs were established in universities around the world to address the increasing need for sub-disciplines such as biomedical and biochemical engineering. This expansion stimulates the search for novel methods and techniques in applied bioscience and bioengineering education.

This special issue on Innovation in Applied Bioscience and Bioengineering, consists of seven papers in three main areas:

### **Biomedical and Tissue Engineering**

Two papers in this area are included, namely:

- Involving Undergraduate Students in Research: Practices, Promises and Pointers by Patric Wallin, Tom Adawai, and Julie Gold.
- Transforming Biomedical Engineering Education through Instructional Design by Aileen Huang-Saad and Emmett Springer.

### **Biochemical Engineering and Biotechnology**

There are three papers contributed in this area:

- Switching Modalities: An Empirical Study of Learning Outcomes and Learners' Perceptions in a Hybrid Bioengineering Course by Hao He, Heather k. Hunt, and Johannes Strobel.
- Innovative Integrated Curriculum in Engineering Biotechnology by Fei Geng and Faiez Alani.
- Development of Case Based Learning (CBL) in Engineering Technology Education by Faiez Alani.

### **Computational Modeling and Simulation of Biological systems**

The two papers contributed are:

- Implementation of a Course in Computational Modeling of Biological Systems in an Undergraduate Engineering Program by Seshasai Srinivasan and Nasim Muhammad.
- Using Engineering Design Software to Motivate Student Learning for Math-Based Material in Biotechnology Courses by Amin Reza Rajabzadeh, Jennifer Long, Rebeca Grace Couper, and Ana Gomez Cardoso.

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