BTEC 5210

BTEC 5210: Principles and Applications in Biotechnology
Time: Saturday (9:00 am - 1:20 pm; 2:30 pm – 6:50 pm)
Venue: Room 4502 (Lift 25-26)

Coverage: The goal of this course is to provide an interdisciplinary, state-of-the-art introduction to biotechnology. Topics include the molecular foundations of biotechnology, molecular microbiology, biotech process development and scale-up, product approval and regulatory affairs, genomics, microarray analysis, proteomics, computational biology, molecular modeling, and analytical biotechnology.

Intended Learning Outcomes:
- Process factual knowledge comprehensively across the principal areas of biotechnology
- Explain information related to the principles of cutting-edge biotechnology
- Evaluate information and data derived from experimental models in biotechnological applications
- Apply functional knowledge to research methodology of biotechnology
- Gain awareness of complexity of issues facing biotechnology and types of contributions that can be offered to society

Format of Evaluation: A take-home examination which constitutes assay-type questions. Each student works on three assignments, with each related to specialized area of biotechnological applications, which require students to evaluate and integrate the latest literature in the area of biotechnology.

Coordinator: Prof. Raymond SC Wong  bcrayw@ust.hk
Instructors: Prof. Kenny K Chung  bckchung@ust.hk
Prof. Randy YC Poon  rycpoon@ust.hk
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<th>Week</th>
<th>Date</th>
<th>Topic</th>
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<tr>
<td>1</td>
<td>11-06-2016</td>
<td>Protein Kinase and Human Diseases</td>
<td>Wu</td>
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<td>2</td>
<td>18-06-2016</td>
<td>Animal and Medicinal Biotechnology</td>
<td>Chung</td>
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<td>3</td>
<td>25-06-2016</td>
<td>Genomics and Proteomics</td>
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<td>02-07-2016</td>
<td>Plant Biotechnology</td>
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<td>5</td>
<td>09-07-2016</td>
<td>Novel Molecular and Cellular Biology Techniques</td>
<td>Poon</td>
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Morning session: 09:00 – 10:30 Lecture  14:30 – 16:00 Lecture
10:30 – 11:00 Break  16:00 – 16:30 Break
11:00 – 12:30 Lecture  16:30 – 18:00 Lecture
12:30 – 13:20 Tutorial  18:00 – 18:50 Tutorial

Instructor may rearrange the above time schedule up to teaching requirement.