

Course Title	Special Topics in Modern life Science		
Semester	4-2	Course Type	Advanced
Course Number	24917-00	No. of Credit	3/3/0
Professor	Hee-Moon Park	E-mail	hmpark@cnu.ac.kr
Objective	<p>Thanks to the growing needs for improved quality of life, the development of research tools for life science and of convergence technologies are breaking down the boundary between many disciplines. In this lecture, the latest advancements in research techniques for basic life science and recent trends of R&D in bioindustries, which are not introduced yet in current textbooks, will be introduced. This course will be helpful to improve the ability of students in terms of knowledges in life science and entrepreneurship for bio-industry.</p>		
Syllabus	<ol style="list-style-type: none"> 1. Future technologies for life science and their impacts on bioindustry 2. Present status of the R & D and market in bioindustry 3. R & D trend of biopharmaceuticals and related industry development trend 4. Understanding the basic properties and industrialization of microbiome 5. Understanding the principles and industrialization of synthetic biology 6. Understand the principles and industrial trends of genome analysis and editing technology 7. Biotechnology and Precision Medicine - Understanding technology development and industrialization trends 8. Advancement in stem cell technology and trend in product development 9. Understanding the characteristics of protein drug production and QC process 10. R & D and commercialization strategy of biologics specialist venture 11. Microbial management (GMP) case in the production site of biologics 12. Bioinformatics and genome analysis technology start-up case 13. Professional establishment and management case in CRO - Understanding CRO as a profession 		