

Course Information	
Course title	Applied Translational Microbiology
Semester	104-2
Designated for	VARIOUS PROGRAM BIOTECHNOLOGY PROGRAM
Instructor	TANG-LONG SHEN
Curriculum Number	Prog5185
Curriculum Identity Number	P05 U4140
Class	
Credits	3
Full/Half Yr.	Half
Required/ Elective	Elective
Time	Monday 56789
Remarks	The upper limit of the number of students: 15. The upper limit of the number of non-majors: 5.
Ceiba Web Server	http://ceiba.ntu.edu.tw/1042Prog5185
Table of Core Capabilities and Curriculum Planning	Association has not been established
Course Syllabus	
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Course Description	Example is given as the following with a focus on Cordyceps spp. Participating students will have to attend a field trip involving in collecting indigenous fungi, in particular the fungi infected insects and known to be used in Traditional Chinese medicine (TCM), such as Cordyceps spp. In addition, students will also practice to identify, cultivate and analyze the collected fungi. In this program, bioassays and toxicological test will be conducted to investigate any of their potential usages in medicine and healthy supplement to improve the global health. At last, the protocols for cultivation and fermentation growth in vitro of the Cordyceps spp. will be learned and it is important for future industrialization.
Course Objective	This program aims to enable students in learning the biodiversity and in translation usage of the bio-resources in Taiwan.
Course Requirement	Field trip, laboratory identification (including documentation, photography, isolation, culture, and genotyping), Cultivation and fermentation, Chemical analyses, in vitro bioassays (MTT, migration, whitening, ROS, lipolysis, anti-virus), Toxicological test, Industrialization.
Office Hours	
References	

Designated reading		
Grading		
Progress		
Week	Date	Topic
No data		