

课程详述

COURSE SPECIFICATION

以下课程信息可能根据实际授课需要或在课程检讨之后产生变动。如对课程有任何疑问，请联系授课教师。

The course information as follows may be subject to change, either during the session because of unforeseen circumstances, or following review of the course at the end of the session. Queries about the course should be directed to the course instructor.

1.	课程名称 Course Title	生命科学前沿讲座和文献综述 Frontier in Life Science Seminar and Journal Club
2.	授课院系 Originating Department	生物系 Department of Biology
3.	课程编号 Course Code	BIO308
4.	课程学分 Credit Value	2
5.	课程类别 Course Type	专业选修课（生物科学、生物技术、生物信息学专业） Major Elective Courses (Biological Sciences, Biotechnology, Bioinformatic Majors)
6.	授课学期 Semester	春季 Spring
7.	授课语言 Teaching Language	中英双语 English & Chinese
8.	授课教师、所属学系、联系方式（如属团队授课，请列明其他授课教师） Instructor(s), Affiliation & Contact (For team teaching, please list all instructors)	团队授课（每年会有所变化） 协调人：郭红卫，guohw@sustech.edu.cn 授课人：郭红卫，陈炜，刘东，宋学军，孙颖，肖波，Peter Pimpl，杜嘉木，李妍，靳文菲，龚欣，侯春晖，邓怪，姬生健，黄鸿达，侯圣陶。 Teaching in group. (The group differs every year) Coordinator: Hongwei Guo Teachers: Hongwei Guo, Wei Chen, Dong Liu, Xuejun Song, Ying Sun, Bo Xiao, Peter Pimpl, Jiamu Du, Yan Li, Wenfei Jin, Xin Gong, Chunhui Hou, Yi Deng, Shengjian Ji, Hongda Huang, Shengtao Hou.
9.	实验员/助教、所属学系、联系方式 Tutor/TA(s), Contact	待公布 To be announced
10.	选课人数限额(可不填) Maximum Enrolment (Optional)	

11. 授课方式 Delivery Method	讲授 Lectures	习题/辅导/讨论 Tutorials	实验/实习 Lab/Practical	其它(请具体注明) Other (Please specify)	总学时 Total
学时数 Credit Hours	16			Presentation:16	32
12. 先修课程、其它学习要求 Pre-requisites or Other Academic Requirements	无 none				
13. 后续课程、其它学习规划 Courses for which this course is a pre-requisite	无 none				
14. 其它要求修读本课程的学系 Cross-listing Dept.	无 none				

教学大纲及教学日历 SYLLABUS

15. 教学目标 Course Objectives

This course aims to bring forefront research advancements related to biological sciences to highly motivated students by our faculty members in a format of seminar series. In combination with a student-run journal club, the course will help students get familiar with forefront research areas in life sciences.

本课程致力于以讲座的形式向学生介绍生物科学的前沿进展，主讲老师是生物系众教授。并且，本课程还结合了学生做文献分享的形式，旨在帮助学生了解生命科学的前沿领域。

16. 预达学习成果 Learning Outcomes

The course combines the faculty seminar talks with student journal club presentations. Selected topics of current interests in biology will be discussed utilizing recently published papers in the fields to promote the ability of reading paper. Meanwhile, this course provides introduction to the techniques and style of technical oral presentation generally accepted by professional biologists.

本课程将老师做讲座与学生做文献分享相结合，学生讲解的与课程主题相关的文献将在课上得到充分的讨论，以提高学生阅读文献的能力。同时，本课程还将培养学生做口头学术汇报的能力。

17. 课程内容及教学日历（如授课语言以英文为主，则课程内容介绍可以用英文；如团队教学或模块教学，教学日历须注明主讲人）

Course Contents (in Parts/Chapters/Sections/Weeks. Please notify name of instructor for course section(s), if this is a team teaching or module course.)

The course includes 16 seminars given by our faculty members (lecturers). Each seminar takes approximately 50 minutes, which is followed by a 50 min journal club conducted by assigned students. Each seminar lecturer should choose a research paper related to the seminar topic and give it to the students for journal club presentation at least one week before the seminar starts. To prepare the paper presentation, the students should find further related background readings by themselves.

2018-2019 Frontier in Life Sciences Seminar and Journal Club Schedule

Seminar series	Lecturer	Seminar Topics
Seminar 1	Hongwei Guo	How plant smells: signaling mechanisms of ethylene gas.

Seminar 2	Wei Chen	Transcriptome profiling---Past, Present and Future
Seminar 3	Dong Liu	Recent progress of zebrafish research in China
Seminar 4	Xuejun Song	Empathy: Neuroscience Basis and Potential Impact on AI
Seminar 5	Ying Sun	Cancer: invasion and metastasis
Seminar 6	Bo Xiao	Glial Biology in Health and Disease
Seminar 7	Peter Pimpl	Nanobody-based tools to analyze protein functions in vivo
Seminar8	Jiamu Du	The crosstalk between DNA methylation and histone modification
Seminar9	Yan Li	RNA editing in human diseases
Seminar10	Wenfei Jin	Single cell sequencing and its application
Seminar 11	Xin Gong	A Century of Cholesterol and Cardiovascular Disease
Seminar12	Chunhui Hou	From 1D to 4D: Spatial and Temporal Regulation of Gene Expression
Seminar13	Yi Deng	Mechanotransduction: How cell senses and responds to forces?
Seminar14	Shengjian Ji	Regulation of neural development by mRNA m6A modification
Seminar15	Hongda Huang	Structural basis for histone chaperones
Seminar16	Shengtao Hou	Brain and Mind - from structural connections to cognitive functions

18. 教材及其它参考资料 Textbook and Supplementary Readings

None 无

课程评估 ASSESSMENT

19. 评估形式 Type of Assessment	评估时间 Time	占考试总成绩百分比 % of final score	违纪处罚 Penalty	备注 Notes
出勤 Attendance		30		
课堂表现 Class Performance				
小测验 Quiz				
课程项目 Projects				
平时作业 Assignments				
期中考试 Mid-Term Test				
期末考试 Final Exam				
期末报告 Final Presentation		30		
其它（可根据需要 改写以上评估方 式） Others (The above may be modified as necessary)		Essay: 40		

20. 记分方式 GRADING SYSTEM

- A. 十三级等级制 Letter Grading
 B. 二级记分制（通过/不通过） Pass/Fail Grading

课程审批 REVIEW AND APPROVAL

21. 本课程设置已经过以下责任人/委员会审议通过
 This Course has been approved by the following person or committee of authority

本课程经生物系本科教学指导委员会审议通过。
 This Course has been approved by Undergraduate Teaching Steering Committee of Department of Biology.