

化学工程&工程物理&材料工程
**Chemical and
Biomolecular Engineering
& Engineering Physics
& Material Science and
Engineering**

主讲人：湊亦唯



I ILLINOIS

Common Features

- 实验课很重要
- 理科综合
- 相对来说除了化工在石油和制造（日用，食品，过程控制）领域，这些专业比起ISE，CS/ECE更加graduate oriented
- 部分大企业雇主可能涉及所谓的“敏感领域”
- Research experience is important



Chemical and Biomolecular Engineering (ChBE)

- LAS Specialized Curriculum
 - 付工院学费，类似工院的课程设置 ([ENG100](#))，但是没有工院的drop规定 😊
 - Specialized Curriculum 在文理学院但是不能double major
- #7 in U.S. News
- 资源 – 工院，化学系，LAS
 - ChBE Tutoring, ChBE Study Room, Free Printing 😊
 - Engineering Service
- 课程 – 129学分，大量专业课
 - ChBE ≠ Chem，更像是Applied (Math + Physics + Chem)
 - 2种concentration：Chemical 和 Biomolecular engineering



Year 1		Year 2		Year 3		Year 4		Year 5	
Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
Calculus I MATH 221 (4)	Calculus II MATH 231 (3)	Calculus III MATH 241 (4)	Diff Eq MATH 285 (3)	Data Anal. IE 300 (3)					
	Physics 1 PHYS 211 (4)	Physics 2 PHYS 212 (4)	Lin Alg MATH 415 (3)						
Chem 1 CHEM 202 (3)	Chem 2 CHEM 204 (3)	O Chem 1 CHEM 236 (4)	Physics 4 PHYS 214 (2)	P Chem 1 CHEM 442 (4)					
Chem Lab 1 CHEM 203 (2)	Chem Lab 2 CHEM 205 (2)	Stru&Syn Lab CHEM 237 (2)	O Chem 2 CHEM 436 (3)	Inst. Char. CHEM 420 (2)					
Intro. Eng. ENG 100 (0)				Inst. Lab CHEM 315 (2)					
Intro. Comp. CS 101 (3)	Intro. CHBE CHBE 121 (1)	M. & E. Bal. CHBE 221 (3)	Thermo CHBE 321 (4)	Fluids CHBE 421 (4)	Mass Xfer CHBE 422 (4)				
	Composition RHET 105 (4)				Reactors CHBE 424 (3)				
						Unit Ops CHBE 430 (4)			
							Design CHBE 431 (4)		
Gen Ed (3)		Gen Ed (3)		Gen Ed/TE (10)		Technical Electives (9)	Technical Electives (10)		

→ Prerequisite

⋯→ Co/prerequisite

Course Description
 DEPT Course#
 (Credit Hours)

This document is to be used for course planning only. Always consult official graduation requirements.

5/2016



Engineering Physics

- Multiple Subfield [多个分流方向](#)
- Course Map [课程](#)
- Engineering Physics (工院), Physics (文理 Specialized Curriculum), Physics (文理 Science & Letters)



Material Science & Engineering

- #3 in U.S. News
- Course Map [课程](#)
- 有Minor



Research

- Case Study：我的朋友们
 - 1. Beckman Institute
 - 2. Professor多次交流
 - 3. Professor邮件交流+课程



资料获取

- [University Catalog](http://catalog.illinois.edu) — 专业/Minor总体相关 (catalog.illinois.edu)
- [Departmental Website](#) — Research/具体专业信息
- [Course Explorer](http://courses.illinois.edu) — 具体课程相关 (courses.illinois.edu)

