

2009-2010 First Year Core Curriculum
UCSF Integrative Program in Quantitative Biology (iPQB)

PROGRAM	PRE-FALL	FALL	Inter Quarter	WINTER	SPRING	End Spring
Biophysics	Bootcamp	BP 204A Macromolecular Interactions Chem 241 Statistical Mechanics BMI 206 Bioinformatics	Team Challenge	BP 204B Macromolecular Interactions	3 Mini Courses (Requires one outside iPQB, focused on molecular biology)	Select: Biophysics or BMI Optional: Systems Biology Specialization
Bioinformatics				BMI 203 Algorithms		
Systems Biology				BP 205 Dynamical Systems		

Notes:

- **Winter Quarter:** Select two of the three courses. While program selection is not required until end of Spring, appropriate corresponding coursework must be taken. If corresponding coursework is not taken in year one, must take in year two.
- **Systems Biology** students will have an advanced systems biology course in year 2
- **Bootcamp:** Two-week immersion that provides basic competency and breadth from the very start of formal curriculum. Fosters group cohesion while breaking down barriers of scientific communication, and providing all a level playing field.
- **Team Challenge:** One-week group challenge that extends interdisciplinary training, fostering collaboration between students of different backgrounds.
- **Mini-Courses:** Two-week elective courses that allow for diversification of curriculum. Each student will take 3 minicourses in their first spring quarter. One of them must be outside iPQB and focus on molecular and cellular biology.

Additional Year One Requirements:

Course	Course Information	Description
Lab Rotations	BP 215/BMI 221 Fall, Winter, Spring 1-8 Units	One rotation per quarter, must include at least one experimental, one computational
Research Seminars	BP 220/BMI 220 Fall, Winter, Spring 1 unit	Research seminars presented by visiting scientists
BBC Journal Club	BP 297/BMI 223 Fall, Winter, Spring 1 unit	Journal club presentations by first and second year students in the iPQB and CCB (Chemistry and Chemical Biology) graduate programs.
Graduate Research Opportunities	BMI 224 for both programs Fall, Winter, Spring 1 unit	Faculty-Student Talks
2 nd Year Student Research Presentations (BMI only)	BMI 222 Spring 1 unit	Research Presentations by 2 nd year BMI students; attendance required by all BMI students

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Biophysics Journal Club	No course no. Fall, Winter, Spring	Journal club presentations by first and second year Biophysics students (all first years invited to attend)
Becoming Effective Science Teachers (BEST)	Biochem 212 Course offered in summer, but students register to receive credit in Fall of 2 nd year	Teacher/TA Training course

Year Two Requirements:

Course	Course Information	Description
Oral Qualifying Exam	Must complete by end of second year	
Research	BP 250/BMI 250 Fall, Winter, Spring 1-8 units	Research in your thesis lab
Research Seminars	BP 220/BMI 220 Fall, Winter, Spring 1 unit	Research seminars presented by visiting scientists
BBC Journal Club	BP 297/BMI 223 Fall, Winter, Spring 1 unit	Journal club presentations by first and second year students in the iPQB and CCB (Chemistry and Chemical Biology) graduate programs.
Graduate Research Opportunities	BMI 224 for both programs Fall, Winter, Spring 1 unit	Faculty-Student Talks
2 nd Year Student Research Presentations (BMI only)	BMI 222 Spring 1 unit	2nd Year Research Seminar Presentation (PI and another faculty member must evaluate your talk) * 2nd year student talks may take place in any quarter, but for registration purposes, students should sign up for this in Spring quarter only.
Biophysics Journal Club	No course no. Fall, Winter, Spring	Journal club presentations by first and second year Biophysics students
Ethical Conduct of Science	Biochem 244 Spring 1 unit	Ethical Conduct of Science course
Teaching Assistantship	Fall, Winter, or Spring	One quarter TA position in iPQB or School of Pharmacy
Systems Biology II	TBA	

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Year Three Requirements:

Course	Course Information	Description
Advance to Candidacy	Within 6 months following Qualifying Exam	
Thesis Meeting	On or around the anniversary of your Qualifying Exam	
Research	BP 250/BMI 250 Fall, Winter, Spring 1-8 units	Research in your thesis lab
Research Seminars	BP 220/BMI 220 Fall, Winter, Spring 1 unit	Research seminars presented by visiting scientists
2 nd Year Student Research Presentations (BMI only)	BMI 222 Spring 1 unit	Attendance required of all BMI students

Year Four Requirements:

Course	Course Information	Description
Thesis Meetings	At least once per year	
Research	BP 250/BMI 250 Fall, Winter, Spring 1-8 units	Research in your thesis lab
Research Seminars	BP 220/BMI 220 Fall, Winter, Spring 1 unit	Research seminars presented by visiting scientists
2 nd Year Student Research Presentations (BMI only)	BMI 222 Spring 1 unit	Attendance required of all BMI students

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Year Five Requirements:

Course	Course Information	Description
5 th Year Research Talk	No course registration, given in Fall quarter	The progress of your research, talk given at graduate program retreat
Thesis Meetings	At least once per year	
Research	BP 250/BMI 250 Fall, Winter, Spring 1-8 units	Research in your thesis lab
Research Seminars	BP 220/BMI 220 Fall, Winter, Spring 1 unit	Research seminars presented by visiting scientists
2 nd Year Student Research Presentations (BMI only)	BMI 222 Spring 1 unit	Attendance required of all BMI students

Year Six Requirements:

Course	Course Information	Description
Thesis Meetings	At least once per year	
Research	BP 250/BMI 250 Fall, Winter, Spring 1-8 units	Research in your thesis lab
Research Seminars	BP 220/BMI 220 Fall, Winter, Spring 1 unit	Research seminars presented by visiting scientists
2 nd Year Student Research Presentations (BMI only)	BMI 222 Spring 1 unit	Attendance required of all BMI students
Exit Seminar	Prior to obtaining thesis signatures	
Graduation or Petition	No later than summer of Year 6	Students must graduate by the end of their 6 th year at UCSF, or file a petition or an extension of their research.