

## Curriculum for the Cellular and Molecular Pharmacology (CMP) Training Program

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	Course #	Course Title	Length/Units
<b>REQUIRED Courses for CMP Trainees</b>			
<b>**These courses satisfy BMS Core course requirements**</b>			
W	PHAR/BIOM 255A	**Molecular Basis of Drug Action and Disease Therapy I: (Sunahara/Vallon/Gutkind)	1 quarter/3
S	PHAR/BIOM 255B	**Molecular Basis of Drug Action and Disease Therapy II: (Brown/Joiner)	1 quarter/3
F	PHAR 236	Pharmacokinetics (Chen)	5 sessions/1
W	PHAR 231	Fundamentals of Rigor and Reproducibility (Daneman/TBD)	5 sessions/1
S	PHAR 234 (Odd yrs)	Careers in Biomedical Science (Newton/Hamilton)	5 sessions/1
<b>INTERDISCIPLINARY Training for CMP Trainees</b>			
F, W, S	PHAR 295	**Research Discussions Weekly attendance is required in years during which a student is supported by the training grant, and encouraged in subsequent years, although credit is given only once	weekly/1
F,W,S		Seminars in Pharmacology Topics change yearly. Weekly attendance at Departments seminars is required in years during which a student is supported by the training grant, and encouraged in subsequent years	weekly
F, W, S	PHAR 294	**Molecular Pharmacology Journal Club (Miyamoto and Trainees) Formal registration is required only once and participation in a second quarter is required.	biweekly/1
<b>Quantitative and Analytical ELECTIVES (select at least one)</b>			
W	PHAR/SPPS 268	**Systems-Wide Mass Spectrometry: Proteomics and Metabolomics (Bandeira/Dorrestein)	1 quarter/2
S	PHAR 227 (Odd yrs)	**Fluorescence Spectroscopy for Studying Intracellular Signaling and Macromolecular Structure (Zhang/Taylor)	2 weeks/1
F	PHAR 231 (Even yrs)	**Current Topics in Pharmacology: Intro to Python Programming - A (Schoeneberg)	5 sessions/1
F	PHAR 231 (Odd yrs)	**Current Topics in Pharmacology: Advanced Python Programming - B (Schoeneberg)	5 sessions/1
<b>Suggested ELECTIVES for CMP Trainees</b>			
W	SPPS 263A	**Principles of Pharmaceutical Sciences and Drug Development (O'Donoghue/Podust/Abagyan)	1 quarter/3
S	SPPS 263B	**Principles of Pharmaceutical Sciences and Drug Development (Ballatore/Caffrey/Hook)	1 quarter/3
W	PHAR 222/BIOM 256	Fundamentals of Cancer Biology (Yang)	1 quarter/3
S	PHAR 224 (Odd yrs)	Cancer as a Disease: Translation, Diagnosis, and Therapy (Furnari)	1 quarter/3