2017-2018 PHYSICAL CHEMISTRY COURSE WORK

Strongly Recommended Core Courses (F = Fall, W = Winter, S = Spring, Sm = Summer)

Chemistry 231A	Fundamentals of Quantum Mechanics (F)
Chemistry 200	Conduct of Research (F)
Chemistry 232A	Thermodynamics & Introduction to Statistical Mechanics (W)
Chemistry 249	Analytical Spectroscopy (W)
Chemistry 213	Chemical Kinetics (S)

At least three additional elective courses from the list below

Chemistry 229A	Computational Methods (F)
Chemistry 230	Classical Mechanics & Electromagnetic Theory (F)
Chemistry 231B	Applications of Quantum Mechanics (W)
Chemistry 231C	Molecular Spectroscopy (S)
Chemistry 232B	Advanced Topics in Statistical Mechanics (S)
Chemistry 232C	Non-Equilibrium Statistical Mechanics (W)
Chemistry 246	Separations (F)
Chemistry 248	Electrochemistry (W) (*will be offered in 2018-19*)

Additional courses you may consider (talk to Prof. Potma if you want to substitute one of these courses for an elective)

Chemistry 208	Math for Chemists (Sm) – recommended to everyone who has not taken advanced math courses in college
Chemistry 221A	Fundamentals of Molecular Biophysics (S) (*will be offered in 2018-19*)
Chemistry 225	Polymer Chemistry (W)
Chemistry 228	Electromagnetism (W, *taught by Physics*)
Chemistry 233	Nuclear and Radiochemistry (F)
Chemistry 242A	Physical and Geometrical Optics (*Physics*)
Chemistry 243	Advanced Instrumental Analysis (W) (*will be offered in 2018-19*)
Chemistry 244	Radiation Detection (S)
Chemistry 245A,B,C	Atmospheric Chemistry (F,W)
Chemistry 246	Separations (F)
Chemistry 263	Solid State Materials Chemistry (W)
Chemistry 273	Technical Communication Skills (W)

SAMPLE 1st YEAR SCHEDULE: PHYSICAL CHEMISTRY

Physical chemistry required courses are shown in **bold** (**213**, **231A, 232A, 200**). Four additional courses may be chosen be from this list; they are shown in *italic*. Chem 290 is required for all first-year students. Most classes are worth 4 credit hours. Chem 290 is worth 1 credit hour. Hours for 280 (research once in a group), 291 (research seminar once in a group), 399 (teaching) vary. Your total should be between 12 and 16 credit hours. The total in excess of 16 hours will require paperwork completed by Tenley Dunn.

FALL 2017	WINTER 2018	SPRING 2018
231A: Fundamentals of Quantum Mechanics (Martin)	**232A: Thermodynamics and Statistical Mechanics (Martens)**	**213: Chemical Kinetics (Smith)**
230: Classical Mechanics & Electromagnetic Theory (Burke)	*231B: Applications of Quantum Mechanics (Mukamel)*	*232B: Advanced Topics in Statistical Mechanics (Tobias)*
	249: Analytical Spectroscopy (Corn)	*231C: Molecular Spectroscopy (Mukamel)*
200: Conduct of Research (Van Vranken)		
290: P-Chem seminar	290: P-Chem seminar	290: P-Chem seminar
399: Teaching	399: Teaching	399: Teaching
Other options to consider: 229A: Computational Methods (Taborek)	Other options to consider: 228: Electromagnetism (Physics) 263: Materials Chemistry (Law)	Other options to consider: 244: Radiation Detection (Miller/Nilsson)