

ALBANY COLLEGE OF PHARMACY AND HEALTH SCIENCES

PRE-PHARMACY AND EARLY ASSURANCE

Albany College of Pharmacy and Health Sciences offers a 6 year curriculum (2-year pre-pharmacy and 4-year professional) leading to a Doctor of Pharmacy (PharmD) degree and eligibility for licensure within the profession. Students may enter the pre-pharmacy program through two methods based on the applicant's strength of their application:

- early assurance (guaranteed admission into the first professional year (P1) provided all progression requirements met); or
- general pre-pharmacy (enroll in bachelor's program in Health & Human Sciences; must apply for admission into P1 through PharmCAS).

External students may transfer into the pre-pharmacy program under the early assurance or general pre-pharmacy studies routes of entry if seats are available. Students may opt to complete the four professional years on the Albany or Vermont campus.

PRE-PHARMACY/EARLY ASSURANCE REQUIRED COURSES

NATURAL SCIENCES: 39 REQUIRED CREDITS

CHE 111 and 121: General Chemistry I and II (4, 4)

CHE 211 and 221: Organic Chemistry I and II (4, 4)

PHY 212 and 222: College Physics I and II (4, 4)

BIO 111 and BIO 121: General Biology I and II (4, 4)

BIO 210: Microbiology (4)

3 credits of Bioselectives chosen from BIO 235: Cell Biology (3), BIO 213: Anatomy and Physiology I (3), BIO 215: Anatomy and Physiology II (3), BIO 225: Genetics (3), BIO 375: Bacterial Pathogenesis (3), CLS 305: Clinical Hematology (3), BHS 225: Functional Anatomy (4), BHS 500/510: Applied Neuroscience I and lab (3, 1), BHS 520: Applied Neuroscience II (3). Other courses may be counted as a bioselective with the permission of the Chair of the Department of Basic and Social Sciences.

HUMANITIES, SOCIAL SCIENCE AND COMMUNICATION: 15 REQUIRED CREDITS¹

HUM 101, 102 and 201: The Pre-Modern World (3), The Modern World (3), The Contemporary World (3)

PSY 101: Psychology (3)

COM 115: Principles of Communication (3)

MATHEMATICS: 7 CREDITS

MAT 111: Calculus (4)²

MAT 145: Elementary Statistics (3)

ELECTIVES: Minimum of 9 CREDITS³

9-12 credits of electives

For students entering the 1st pre-pharmacy year in Fall 2015 or later, at least 6 of the 9 required elective credits must be liberal arts credits.

TOTAL CREDITS: 70 CREDITS

¹All incoming students are assessed for their writing ability. The assessment is designed to direct students to the courses for which they are best prepared in the first year of the curriculum.

²Calculus I and II may be substituted for Calculus with 4 credits counting toward elective hours.

³Students completing the PharmD program must have a minimum of 9 elective liberal arts credits and 21 total electives (inclusive of general, liberal arts and professional electives) by graduation. Students may register for an additional 3 credits during the pre-pharmacy years to satisfy the 3 non-professional elective credits designated during the P1-P3 years.

PRE-PHARMACY AND EARLY ASSURANCE SCHEDULE

Year 1						
Fall Semester			Credits	Spring Semester		Credits
BIO 111	General Biology I		4	BIO 121	General Biology II	4
CHE 111	General Chemistry I		4	CHE 121	General Chemistry II	4
MAT 111	Calculus*		4	COM 115	Principles of Communication*	3
HUM 101	The Pre-Modern World		3	HUM 102	The Modern World	3
PSY 101	Psychology		3		Elective	3
	Total		18		Total	17

Year 2						
Fall Semester			Credits	Spring Semester		Credits
CHE 211	Organic Chemistry I		4	CHE 221	Organic Chemistry II	4
PHY 212	College Physics I		4	PHY 222	College Physics II	4
HUM 201	The Contemporary World		3	MAT 145	Elementary Statistics	3
BIO 210	Microbiology		4		Elective	3
	Elective		3		Biology Selective	3
	Total		18		Total	17

*Some students will take these courses in the alternate semesters

Students needing additional writing skill development take COM 101: Academic Reading and Writing and the following schedule of courses.

Year 1						
Fall Semester			Credits	Spring Semester		Credits
BIO 111	General Biology I		4	BIO 121	General Biology II	4
CHE 111	General Chemistry I		4	CHE 121	General Chemistry II	4
COM 101	Academic Reading and Writing		3	COM 115	Principles of Communication	3
HUM 101	The Pre-Modern World		3	HUM 102	The Modern World	3
PSY 101	Psychology		3	MAT 111	Calculus	4
	Total		17		Total	18

Year 2						
Fall Semester			Credits	Spring Semester		Credits
CHE 211	Organic Chemistry I		4	CHE 221	Organic Chemistry II	4
PHY 212	College Physics I		4	PHY 222	College Physics II	4
HUM 201	The Contemporary World		3	MAT 145	Elementary Statistics	3
BIO 210	Microbiology		4		Elective	3
	Elective		3		Biology Selective	3
	Total		18		Total	17

DOCTOR OF PHARMACY: REQUIRED COURSES IN P1-P4

BIOLOGICAL SCIENCES: 17 REQUIRED CREDITS

PSC 311 Biochemistry (3)
PSC 312 Molecular Biology (3)
PSC 315 Immunology (3)
PSC 321; PSC 322 Physiology/Pathophysiology I and II (4,4)

PHARMACEUTICAL SCIENCES: 11 REQUIRED CREDITS

PSC 341; PSC 342 Pharmaceutics I and II (3,3)
PTP 401 Principles of Pharmacology and Medicinal Chemistry Module (2)
PSC 441 Pharmacokinetics (3)

CLINICAL SCIENCES AND PHARMACY PRACTICE: 49 REQUIRED CREDITS

PHM 318 Foundations of Pharmacy (1)
IPS 301, 302, 401, 402, 501, 502 Integrated Problem-Solving Workshops I-VI (7 credits total)
PHM 329 Self-care & Over-the-Counter Medicines (3)
PTP 410, 425, 431, 440, 446, 514, 519, 525, 528, 549 Pathophysiology, Therapeutics, Pharmacology, and Medicinal Chemistry modules (24 credits total)
PSL 331, 332, 431, 432, 531, 532 Pharmacy Skills Labs I-VI (7 credits total)
PHD 410 Drug Information and Biostatistics (2)
PSC 451 Scientific Literature Evaluation (1)
PAD 510 or PAD 511 Jurisprudence (3)
PHM 911 Orientation to Advanced Pharmacy Practice Experiences (0)

ADMINISTRATIVE AND SOCIAL SCIENCES: 9 REQUIRED CREDITS

PAD 451 US and Global Healthcare Systems (3)
PAD 515 Pharmacoeconomics and Health Policy (3)
PAD 521 Pharmacy Administration (3)

HUMANITIES, CULTURE HEALTH, AND ETHICS: 3 REQUIRED CREDITS

ETH 510 Healthcare and Human Values (3)

EXPERIENTIAL EDUCATION: 50 CREDITS

CLK 800 Community Pharmacy Introductory Pharmacy Practice Experience (3)
CLK 928 Health and Wellness Introductory Pharmacy Practice Experience (1)
CLK 803 Team Based Care Introductory Pharmacy Practice Experience (1)
CLK 802 Institutional Pharmacy Introductory Pharmacy Practice Experience (3)
CLK 811+ Advanced Pharmacy Practice Experiences (42 credits total)

Graduation Requirements:

Total of 21 Credits required to graduate

- Minimum of 9 credits must be designated as Professional Elective Credit and taken during the PharmD program years (P1-P3)
- Minimum of 9 credits must be designated as Liberal Arts Elective Credit*

*Some professional electives may also satisfy the Liberal Arts Elective Credit designation.

INTERPROFESSIONAL EDUCATION

Pharmacists are integral members of the healthcare team. As such, an important aspect of student pharmacists' education includes Interprofessional education, which has been defined as occurring when students of two or more health professions learn from, with and about each other. The School of Pharmacy and Pharmaceutical Sciences of ACPHS has adopted the following Vision and Mission statements for Interprofessional Education.

Vision: ACPHS will graduate pharmacists who actively collaborate with other health professionals to provide and promote patient-centered care.

Mission: The mission of IPE at ACPHS is to provide every student multiple opportunities to learn about, from and with other health professions. Through these experiences, students will develop competencies approved by the PCC, in each of the four recognized IPE domains. Through local and regional affiliations, our students and faculty will provide leadership to build stronger healthcare teams and thus improve the care of their patients.

DOCTOR OF PHARMACY PROFESSIONAL CURRICULAR GRID

Professional Year 1 (P1)						
Fall Semester			Credits	Spring Semester		Credits
PSC 341	Pharmaceutics I	3	PSC 342	Pharmaceutics II	3	
PSC 321	Physiology/Pathophysiology I	4	PSC 322	Physiology/Pathophysiology II	4	
CHE 311 or PSC 311	Biochemistry	3	PSC 312	Molecular Biology	3	
PSC 315	Immunology	3	PHM 329	Self Care/OTC	3	
PHM 318	Foundations of Pharmacy	1	PSL 332	Pharmacy Skills Lab II	1	
PSL 331	Pharmacy Skills Lab I	1	IPS 302	Integrated Problem Solving Workshop II	1	
IPS 301	Integrated Problem Solving Workshop I	1		Professional Elective ^a	3	
	Total	16		Total	15-18	

Introductory Pharmacy Practice Experience - Summer after P1 year

Community (3 credits)
Health and Wellness (1 credit)

Professional Year 2 (P2)						
Fall Semester			Credits	Spring Semester		Credits
PTP 401	Principles of Pharmacology and Medicinal Chemistry	2	PTP 425	PTP&M – Endocrine	2	
PSC 441	Pharmacokinetics	3	PTP 431	PTP&M – GI/Nutrition	2	
PTP 440	PTP&M – Cardiovascular	4	PTP 446	PTP&M – Infectious Disease	4	
PTP 410	PTP&M – Respiratory Disease	1	PAD 451	US and Global Health Care Systems	3	
PHD 410	Drug Information/Biostatistics	2	IPS 402	Integrated Problem Solving Workshop IV	1	
IPS 401	Integrated Problem Solving Workshop III	1	PSL 432	Pharmacy Skills Lab IV	1	
PSL 431	Pharmacy Skills Lab III	1	PSC 451	Scientific Literature Evaluation ^b	1	
PSC 451	Scientific Literature Evaluation ^b	1		Professional Elective ^a	3	
	Professional Elective ^a	3				
	Total	14-18		Total	13-17	

Introductory Pharmacy Practice Experience - Summer after P2 year

Institutional (3 credits)
Team Based Care (1 credit)

Professional Year 3 (P3)					
Fall Semester		Credits	Spring Semester		Credits
PTP 525	PTP&M – Nephrology/Toxicology	2	PTP 515	PTP&M Rheumatology/Oncology	3
PTP 528	PTP&M – Genitourinary	2	PAD 510 or PAD 511	Jurisprudence	3
PTP 549	PTP&M – Neurology/Psychology	4	ETH 510	Health Care and Human Values	3
IPS 501	Integrated Problem Solving Workshop V	1	PAD 521	Pharmacy Administration	3
PAD 515	Pharmacoeconomics and Health Policy	3	IPS 502	Integrated Problem Solving Workshop VI	2
PSL 531	Pharmacy Skills Lab V	2	PSL 532	Pharmacy Skills Lab VI	1
PHM 911	Orientation to APPE	No credit		Professional Elective ^a	3
	Professional Elective ^a	3			
	Total	14-17		Total	15-18

Professional Year 4 (P4)		
Advanced Pharmacy Practice Experiences (42 credits) - Summer, Fall and Spring Semesters		
CLK 929	Community Core Rotation	6
CLK 843 or CLK 930	Institutional Core Rotation	6
CLK 812 – CLK 999	Inpatient Core Rotation	6
CLK 812 – CLK 999	Ambulatory Care Core Rotation	6
	Flexible Core Rotation	6
	Elective	6
	Elective	6
	Total	42

PTPM – Pathophysiology, Therapeutics, Pharmacology, and Medicinal Chemistry

^a Professional electives can be taken any semester

^b Students take once in the fall or spring

Updated September, 2016