

Pharmacy, PhD

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Pharmacy, PhD

- Drug Discovery and Experimental Therapeutics Subprogram [p. 1]
- Health Services Research Subprogram [p. 1]
- Pharmaceutics Subprogram [p. 3]

DRUG DISCOVERY AND EXPERIMENTAL THERAPEUTICS SUBPROGRAM

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. ^a		
Hours		0
First Year		
Fall		
BIOS:4120	Introduction to Biostatistics	3
PHAR:5510	Pharmaceutical Sciences and Experimental Therapeutics Seminar	1 - 2
PHAR:6820	Drug Discovery and Experimental Therapeutics Research	3
Hours		7-8
Spring		
PHAR:5545	Current Medicinal Chemistry	3
PHAR:6515	Perspectives in Drug Discovery	2
PHAR:6820	Drug Discovery and Experimental Therapeutics Research	3
Hours		8
Second Year		
Fall		
PCOL:4130 or PHAR:7101	Drug Mechanisms and Actions or Principles of Experimental Therapeutics	3
PHAR:6820	Drug Discovery and Experimental Therapeutics Research	3
Interdisciplinary Elective ^b		2
Hours		8
Spring		
PHAR:6820	Drug Discovery and Experimental Therapeutics Research	6
PCOL:4130	Drug Mechanisms and Actions	3
Hours		9

Third Year

Any Semester

Exam: Doctoral Comprehensive Exam^c

		Hours	0
Fall			
PHAR:6820	Drug Discovery and Experimental Therapeutics Research		3
Interdisciplinary Elective ^b			3
Hours			6

Spring

PHAR:6820	Drug Discovery and Experimental Therapeutics Research		3
Interdisciplinary Elective ^b			2
Hours			5

Fourth Year

Fall

PHAR:6820	Drug Discovery and Experimental Therapeutics Research		6
Interdisciplinary Elective ^b			3
Hours			9

Spring

PHAR:6820	Drug Discovery and Experimental Therapeutics Research		6
Hours			6

Fifth Year

Fall

PHAR:6820	Drug Discovery and Experimental Therapeutics Research		7
Hours			7

Spring

PHAR:6820	Drug Discovery and Experimental Therapeutics Research		7
Hours			7

Exam: Doctoral Final Exam^d

Hours			7
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Total Hours **72-73**

- a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
- b Work with faculty advisor to determine appropriate graduate coursework and sequence; see General Catalog and department website for specifics.
- c Faculty advisor to determine when this exam will be, but typically by the end of third year.
- d Dissertation defense.

Health Services Research Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
74 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. ^a		
Hours		0
First Year		
Fall		
BIOS:4120	Introduction to Biostatistics	3

HMP:4000	Introduction to the U.S. Health Care System ^{b, c}	3
PHAR:5310	Health Services Research Seminar ^d	1
PHAR:5350	Introduction to Research Methods ^{b, e}	3
PHAR:6320	Health Services Research	2
Hours		12
Spring		
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
PHAR:5310	Health Services Research Seminar ^d	1
PHAR:5360	Applied Research Methods: Primary Data	2
PHAR:5365	Applied Research Methods: Secondary Data	2
PHAR:6320	Health Services Research	1
	Research Methods and Statistics Elective ^{b, f, g}	3
Hours		12
Second Year		
Fall		
BMED:7270	Scholarly Integrity/Responsible Conduct of Research I	0
PHAR:5310	Health Services Research Seminar ^d	1
PHAR:6320	Health Services Research	2
PHAR:6330	Models of Patient Behavior and Choice ^{b, e}	3
	Research Methods and Statistics Elective ^{b, f, g}	3
	Specialty Area Elective ^f	3
Hours		12
Spring		
BMED:7271	Scholarly Integrity/Responsible Conduct of Research II	0
PHAR:5310	Health Services Research Seminar ^d	1
PHAR:6320	Health Services Research	2
PHAR:6331	Models of Provider Behavior and Choice ^{b, e}	3
	Specialty Area Elective ^f	3
	Specialty Area Elective ^f	3
Hours		12
Third Year		
Any Semester		
	Specialty Qualifying Exam ^h	
Hours		0
Fall		
PHAR:5310	Health Services Research Seminar ^d	1
PHAR:6320	Health Services Research	1
	Specialty Area Elective ^f	3
	Specialty Area Elective ^f	3
	Specialty Area Elective ^f	3
Hours		11
Spring		
PHAR:5310	Health Services Research Seminar ^d	1
PHAR:6320	Health Services Research	2

	Specialty Area Elective ^f	3
	Specialty Area Elective ^f	3
Hours		9
Fourth Year		
Any Semester		
	Exam: Doctoral Comprehensive Exam ⁱ	
Hours		0
Fall		
PHAR:5310	Health Services Research Seminar ^d	1
PHAR:6320	Health Services Research	1
Hours		2
Spring		
PHAR:5310	Health Services Research Seminar ^d	1
PHAR:6320	Health Services Research	1
Hours		2
Fifth Year		
Fall		
PHAR:5310	Health Services Research Seminar ^d	1-2
PHAR:6320	Health Services Research	1
Hours		2-3
Spring		
PHAR:5310	Health Services Research Seminar ^d	1-2
PHAR:6320	Health Services Research	1
	Exam: Doctoral Final Exam ^j	
Hours		2-3
Total Hours		76-78

- a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
- b Must complete before taking the Core Competency Qualifying Exam.
- c May be waived for students who have had equivalent coursework.
- d Registration required every semester; optional after fourth year.
- e Offered every other year; work with faculty advisor to select appropriate first year classes if entering the program on a year when not taught.
- f Work with faculty advisor to determine appropriate graduate coursework and sequence; see General Catalog and department website for specifics.
- g May be taken in biostatistics, economics, education, psychology, mathematics, or sociobiology.
- h Faculty advisor to determine when this exam will be, but typically by the end of third year.
- i A required Core Competency Qualifying Exam; work with faculty advisor to determine when this exam may be completed (typically during fourth year).
- j Dissertation defense.

Pharmaceutics Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. ^a		
The degree requires 30 s.h. in didactic coursework, including a minimum of 15 s.h. in divisional courses and 15 s.h. of pharmacy or elective coursework; the remaining 42 s.h. can be fulfilled with research or electives.		
Hours		0
First Year		
Fall		
MATH:2560 or MATH:3600	Engineering Mathematics IV: Differential Equations ^b or Introduction to Ordinary Differential Equations	3
CHEM:4430 or CHEM:4431	Principles of Physical Chemistry ^b or Chemical Thermodynamics	3
PHAR:4736	Properties of Dosage Forms I ^b	3
PHAR:6710	Pharmaceutics Graduate Seminar ^c	1
Elective course ^d		2
Hours		12
Spring		
PHAR:4737	Properties of Dosage Forms II ^b	3
PHAR:4800	Chemical and Biophysical Properties of Drugs	2
PHAR:6706	Equilibria Processes	3
PHAR:6710	Pharmaceutics Graduate Seminar ^c	1
Elective course ^d		3
Hours		12
Second Year		
Fall		
PHAR:4146	Drug Disposition and Pharmacokinetics	2
BMED:7270	Scholarly Integrity/Responsible Conduct of Research I	0
PHAR:6720	Pharmaceutics Research	2
PHAR:6710	Pharmaceutics Graduate Seminar ^c	1
Elective course ^d		3
Elective course ^d		3
Hours		11
Spring		
PHAR:5745	Drug Delivery: Principles and Applications I	3
PHAR:6700	Advanced Pharmacokinetics and Pharmacodynamics	3
BMED:7271	Scholarly Integrity/Responsible Conduct of Research II	0
PHAR:6720	Pharmaceutics Research	2
PHAR:6710	Pharmaceutics Graduate Seminar ^c	1
Elective course ^d		2
Hours		11

Third Year

Any Semester

Exam: Doctoral Comprehensive Exam^e

Hours		0
Fall		
Elective course ^d		3
Elective course ^d		3
PHAR:6720	Pharmaceutics Research	3
Hours		9
Spring		
Elective course ^d		3
Elective course ^d		3
PHAR:6720	Pharmaceutics Research	3
Hours		9
Summer		
Internship (optional)		
Hours		0
Fourth Year		
Fall		
PHAR:6720	Pharmaceutics Research	2
Hours		2
Spring		
PHAR:6720	Pharmaceutics Research	2
Hours		2
Summer		
Internship (optional)		
Hours		0
Fifth Year		
Fall		
PHAR:6720	Pharmaceutics Research	2
Hours		2
Spring		
PHAR:6720	Pharmaceutics Research	2
Exam: Doctoral Final Exam ^f		
Hours		2
Total Hours		72

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b If equivalent course not taken previously; otherwise work with faculty advisor to select relevant elective in Pharmaceutics or outside the department.

c Enrollment required each semester until completion of comprehensive exam.

d Work with faculty advisor to determine appropriate graduate coursework and sequence.

e Written research proposal and oral exam; typically completed by the end of third year.

f Dissertation defense.