

OCTORAL DEGREE REQUIREMENTS

General policies for all University of Oklahoma doctoral programs are available in the [Graduate College Bulletin](#).

DOCTOR of PHILOSOPHY

D170/R101

MAJOR: Chemistry and Biochemistry

CONCENTRATION: Chemistry

DISCIPLINARY EMPHASIS: Organic Chemistry

Program effective Fall 2015

Graduate courses that are a part of Programs of Study in the Department of Chemistry and Biochemistry are denoted as CHEM G5XYZ, where X is the program of study, Y is the sequence of number within that Program of Study (for Y= 0-9), and Z is the number of credit hours as follows:

X =	0 Departmental Requirements	5 Physical	Y =	0-2 Introductory Instruction	Z =	0-4 Credit Hours
	1 Analytical	6 Chemical Education		3-5 Advanced Instruction		(modules)
	2 Biochemistry	7 Structural Biology		6-7 Special Topics or Electives		
	3 Inorganic	8 Unused		8 Practicum		
	4 Organic	9 Interdisciplinary or custom		9 Seminar		

COURSEWORK REQUIREMENTS

Department Courses and Seminar Requirements

Continuous enrollment in CHEM 5090 Departmental Colloquium is required (0 credit hours).

- ☐ CHEM 5011 Fundamentals I 1 hour
- ☐ CHEM 5021 Fundamentals II 1 hour
- ☐ CHEM 5080 Laboratory Rotations 2 hours
- ☐ CHEM 5491 Seminar in Organic Chemistry 1-12 hours

Continuous enrollment in 5491 is required after the first semester, up to 12 credits.

Total **5-16 hours**

- ☐ **Focus Area/Breadth Course Requirements** **16+ hours**

Minimum of 16 credit hours in letter-graded courses in the CHEM course inventory at the G5XYZ level (X≠0, Y=0-8) including:

Focus Area Course Requirements—Up to 3 credits of student advisory committee-approved graduate coursework outside the department may count for focus area credit.

- ☐ CHEM 5400 Organic Chemistry I: Mechanisms and Reactivity 2+ hours
- ☐ CHEM 5430 Organic Chemistry II: Reactions and Synthesis 2+ hours
- ☐ Minimum 4 hours from:
 - CHEM 5450 Structural Characterization of Organic Compounds, and/or
 - CHEM 5460 Special Topics in Chemical Reactivity and Physical Organic Chemistry, and/or
 - CHEM 5470 Special Topics in Bioorganic and Specialized Organic Compounds, and/or
 - CHEM 5480 Practicum in Organic Chemistry 4+ hours

Breadth Course Requirement

- ☐ Minimum 4 hours CHEM 5XY0 (X≠0 or 4, Y=0-8) 4+ hours

- ☐ **Directed Studies/Dissertation Research** **2+ hours**

2 hours minimum CHEM 6980 Research for Doctoral Dissertation.

Up to 9 credits CHEM 5990 Independent Studies. Up to 6 credits CHEM 5960 Directed Readings in Chemistry.

- ☐ **TOTAL** **90 hours**