DOCTORAL DEGREE REQUIREMENTS

General policies for all University of Oklahoma doctoral programs are available in the Graduate College Bulletin.

DOCTOR of PHILOSOPHY

MAJOR: Chemistry and Biochemistry
CONCENTRATION: Chemistry
DISCIPLINARY EMPHASIS: Chemical Education

Program effective Fall 2018

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
- 1 Analytical
- 2 Biochemistry
- 3 Inorganic
- 4 Organic
- 5 Physical
- 6 Chemical Education
- 7 Structural Biology
- 8 Unused
- 9 Interdisciplinary or custom

Y = 0-2 Introductory Instruction
Z = 0-4 Credit Hours (modules)

Y = 3-5 Advanced Instruction
Z = 6-7 Special Topics or Electives

Y = 8 Practicum

COURSEWORK REQUIREMENTS

Department Courses and Seminar Requirements
Continuous enrollment in CHEM 5090 Departmental Colloquium is required (0 credit hours).

- CHEM 5001 Practicum in General Chemistry Education ................................................................. 1 hour
- CHEM 5011 Fundamentals I .............................................................................................................. 1 hour
- CHEM 5021 Fundamentals II ............................................................................................................ 1 hour
- CHEM 5080 Laboratory Rotations ................................................................................................... 2 hours
  Total ................................................................................................................................................. 5 hours

Focus Area/Breadth Course Requirements

- Minimum of 2 credit hours in letter-graded courses in the CHEM course inventory at the 5XYZ level
  (X=1, 5-7, 9, Y=0-2) ......................................................................................................................... 2+ hours
- EDSC 5513 Teaching Science in Secondary Schools ....................................................................... 3 hours
- EDSC 5523 The Science of Learning Theories, or
- EDSC 6333 Research Paradigms for Scientific Investigations ......................................................... 3 hours
- EIPT 5023 Analysis of Quantitative Data I ....................................................................................... 3 hours
- EIPT 6043 Qualitative Research Methods ....................................................................................... 3 hours
- EIPT 6223 Mixed Methods Research .............................................................................................. 3 hours

  Breadth Course Requirement

- Minimum 4 hours CHEM 5XY0 (X≠0 or 5, Y=3-8) ..................................................................... 4+ hours
  Total ................................................................................................................................................. 21+ 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