

## Chemistry PhD Degree with CSE Option Requirement Worksheet

Student Name: \_\_\_\_\_

UIN: \_\_\_\_\_

CHEM 591 (1 credit hour)

CHEM 591      1 credit hour      Complete? (Y/N) \_\_\_\_\_

CHEM 593 (1 credit hour)

CHEM 593      1 credit hour      Complete? (Y/N) \_\_\_\_\_

8 Credit Hours of 500-Level Chemistry Courses (see exclusions below)

subject course #	hours	subject course #	hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____ total credit hours			

20 Credit Hours (including the 8 hours above) of 400 or 500-Level courses in Chemistry or in a physical, mathematical, or biological science. (At most 2 credit hours of the 20 can be from 1 credit hour courses.)

subject course #	hours	subject course #	hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____ total credit hours			

Literature Seminar (CHEM 5x5). Only take the Lit. Sem. for your research area. 1 Credit hour (does not count toward 20 credit hour requirement above).

Analytical: CHEM 525    Chemical Biology: CHEM 575    Inorganic: CHEM 515

Materials: CHEM 585    Organic: CHEM 535    Physical: CHEM 545

Literature Seminar (CHEM 5x5)      Complete? (Y/N) \_\_\_\_\_

## Examinations & Thesis

Preliminary Exam (Prelim)	Complete? (Y/N) _____	Date_____
Original Research Proposal (ORP)	Complete? (Y/N) _____	Date_____
Final Exam (Final Defense)	Complete? (Y/N) _____	Date_____
Thesis Deposit	Complete? (Y/N) _____	Date_____

## Minimum Credit Hour Totals

96 Credit Hours Total (including CHEM 599)	Complete? (Y/N) _____
64 Credit Hours of CHEM 599 (minimum)	Complete? (Y/N) _____

Area Specific Courses (can be counted in 8 credit hours of 500-Level Chemistry Courses and 20 credit hours of 400/500-Level courses requirements)

<u>Analytical</u> : CHEM 520 (Advanced Analytical Chemistry)	Complete? (Y/N) _____
<u>Chemical Biology</u> : CHEM 570 (Concepts in Chemical Biology)	Complete? (Y/N) _____
<u>Inorganic</u> : CHEM 512 (Advanced Inorganic Chemistry)	Complete? (Y/N) _____
CHEM 516 (Physical Inorganic Chemistry)	Complete? (Y/N) _____
<u>Materials</u> : CHEM 584 (Introduction to Materials Chemistry)	Complete? (Y/N) _____
CHEM 588 (Physical Methods in Materials Chemistry)	Complete? (Y/N) _____
<u>Organic</u> : CHEM 530 (Structure and Spectroscopy)	Complete? (Y/N) _____
CHEM 532 (Physical Organic Chemistry)	Complete? (Y/N) _____
CHEM 534 (Advanced Organic Synthesis)	Complete? (Y/N) _____
<u>Physical</u> : CHEM 540 (Quantum Mechanics)	Complete? (Y/N) _____
CHEM 544 (Statistical Thermodynamics)	Complete? (Y/N) _____

Notes: Grades lower than B- will not count toward the required 20 credit hours. CHEM 599 does not count toward the required 20 credit hours nor the 8 credit hours of chemistry. CHEM 590 can be counted towards the required 20 hours (if approved), but it will not count towards the 8 credit hours of chemistry. For more details or to check for updates, please reference the Chemistry Graduate Manual, Section 5.2.6

### Additional CSE Option Requirements

2 Core CSE courses. Choose from the following: CSE 401 (Numerical Analysis), CSE 402 (Parallel Programming), CSE 510 Numerical Methods for PDEs, or CSE 527 (Scientific Visualization).

subject course #	hours
<u>  CSE  </u> _____	_____ credit hours
<u>  CSE  </u> _____	_____ credit hours

2 CSE course offered in Chemistry. Choose from the following: CHEM 576 (Computational Chemical Biology), CHEM 550 (Advanced Quantum Dynamics), or CHEM 548 (Molecular Electronic Structure), or in other Departments.

subject course #	hours
_____ _____	_____ credit hours
_____ _____	_____ credit hours

Must be able to relate the PhD thesis to computational science as well as to chemistry, as judged by the thesis committee.

Requirement Met? (Y/N) \_\_\_\_\_

Must include at least one faculty member affiliated with the CSE program on your thesis committee.

Requirement Met? (Y/N) \_\_\_\_\_

Note: The student must satisfy the 20 credit hour coursework requirement for one of the six specialization areas within the Department of Chemistry; the core CSE and the CSE courses in chemistry may count toward this total where appropriate. The following courses do not count as CSE courses in chemistry, but do contain a significant computational component: CHEM 540 and CHEM 544/546. For more details or to check for updates, please reference the Chemistry Graduate Manual, Section 1.6.

Additional Worksheet to Calculate your Credit Hours

subject course#	hours	subject course #	hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours
_____	_____ credit hours	_____	_____ credit hours

\_\_\_\_\_ total credit hours