

**MS in chemistry  
Non-thesis Tracks**

The master of chemistry at SHU requires a total of 34 credits for the non-thesis track. Students who select the non-thesis track need to take a three credits CH595 Integrated Experimentation.

a) Required Chemistry Courses  
16 credits for non-thesis option

Course # and title	Credits	
CH521 Adv. Org. Chemistry	3	Or, CH522 Org. Synthesis
CH531 Adv. Physical chemistry I mol. structure	3	Or, CH532 Adv. Physical chem. II mol. Dyn.
CH561 Adv. Analy. Inst. Spectroscopic	3	Or, CH562 Adv. Analy. Inst. Chromato.
CH553 Adv. Inorganic Chemistry	3	Or, CH555 Theoretical inorg. Chemistry
CH595 Integrated experimentation class	2	Can be substituted by an elective course with evidence of substantial lab and instrumental experience
CH595 lab Integrated experimentation lab	1	
CH598 Comprehensive exam	1	

b) Elective Courses  
18 credits for non-thesis option

Course # and title	Credits	
CH553 Advanced Inorganic Chemistry	3	
CH525 Supramolecular Chemistry	3	
CH526 Medicinal Chemistry and Pharmacology	3	
CH529 Special topic: Nuclear Magnetic Resonance Spectroscopy	3	
CH537 Micro/Nanophase Materials: Chem. Process & Analysis	3	
CH545 Bio-informatics	3	
CH547 Computational Chemistry & molecular Modeling	3	
CH556 Chemical Application of Group Theory	3	
CH567 CH-Experimental Design	3	
CH569 Special Topic: Mass Spectrometry	3	
CH571 Adv Environmental Chemistry	3	
CH575 Polymer Chemistry	3	
CH590 Chem-informatic	3	

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