

CHEMISTRY – PRE-PROFESSIONAL (PRE-DENTAL, PRE-MEDICAL, PRE-OPTOMETRY, PRE-PHARMACY, PRE-PHYSICIAN'S ASSISTANT AND PRE-VETERINARY (B.S.))

Student Learning Outcomes

- Students will demonstrate knowledge of Thermodynamics, Kinetics, Equilibrium, Structure of Materials, Quantum Mechanics, Synthesis, Reactivity of Substances and Green Chemistry.
- Students will use critical thinking by demonstrating the ability to recognize the components of a problem, formulate a strategy to solve the problem, apply comprehensive scientific knowledge to execute a solution and then evaluate the effectiveness of the solution.
- Students will demonstrate communication skills reflective of professional standards in chemistry consistent with the American Chemical Society.
- Students will demonstrate discipline-specific core laboratory and calculation-based skills related to the synthesis and characterization of compounds and common methods of chemical analysis.
- Students will demonstrate readiness for post-baccalaureate entry into a workforce or advancement (entrance) into graduate or professional programs in Chemistry.
- Students will demonstrate global perspective in their understanding of how chemistry affects economics, health, technology and the environment.

Recommended

- A Global Learning (GL) experience (<http://catalog.walsh.edu/undergraduate/academic-services/#globallearning>)

Required

- General Education Requirements (<http://catalog.walsh.edu/undergraduate/general-education-curriculum/>)
- Internship

Chemistry		
CHEM 101	FD:T1:Princ of Chemistry I	3
CHEM 101L	Principles of Chemistry I: Lab	1
CHEM 102	Principles of Chemistry II	3
CHEM 102L	Principles of Chemistry II:Lab	1
CHEM 208	Organic Chemistry I	2
CHEM 201L	Organic Chemistry I: Lab	1
CHEM 209	Organic Chemistry II	2
CHEM 202L	Organic Chemistry II: Lab	1
CHEM 210	Organic Chemistry III	2
CHEM 303	Modern Analytical Chem	3
CHEM 303L	Modern Analytical Chem Lab	1
CHEM 305	TH2:CIT:Inorganic Chemistry	3
CHEM 310	Found of Physical Chem	4
CHEM 390	DV:Chemistry Internship	3
Mathematics		
MATH 210A	Calculus I	3
MATH 211	Calculus II	3
MATH 310A	Calculus III	3
Physics		
PHYS 201	Physics with Calculus I	3
PHYS 101L	Principles of Physics I: Lab	1
PHYS 202	Physics with Calculus II	3
PHYS 102L	Principles of Physics II: Lab	1
Total Hours		67

Math and Science requirements in major also fulfill core requirements. All courses required in the major must be completed with a "C-" or better in order to satisfy the major. Incoming students need to place into MATH 104 in order to enroll in BIO 101 and MATH 155 into enroll in CHEM 101.

Code	Title	Hours
Biology		
BIO 101	FD: T1:Principles of Biology I	3
BIO 101L	Principles of Biology I: Lab	1
BIO 102	Principles of Biology II	3
BIO 102L	Principles of Biology II: Lab	1
BIO 206	Microbiology	3
BIO 206L	Microbiology: Lab	1
BIO 209	Anatomy/Physiology I	3
BIO 209L	Anatomy/Physiology I: Lab	1
BIO 210	Anatomy/Physiology II	3
BIO 210L	Anatomy/Physiology II: Lab	1