

# CLINICAL LABORATORY SCIENCE PRE-PROFESSIONAL 4+1 TRACK (B.S.)

## Student Learning Outcomes

- Students will demonstrate knowledge of discipline- specific content related to macro- principles describing the three domains of biology and the molecular nature of life.
- 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 consistent biology-related associations (i.e.FASEB).
- Students will demonstrate discipline- specific core laboratory and calculation- based skills related to the characterization and classification of life forms, their components and habitats and in the molecular analysis of living species.
- Students will demonstrate readiness for post-baccalaureate entry into a workforce or acceptance into graduate or professional programs in Biology and/or health professions.
- Students will demonstrate global perspective in their understanding of how biological factors affect economics, health, technology and the environment.

## Recommended

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

## Required

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

Code	Title	Hours
<b>Biology</b>		<b>21</b>
BIO 101	FD: T1:Principles of Biology I	
BIO 101L	Principles of Biology I: Lab	
BIO 102	Principles of Biology II	
BIO 102L	Principles of Biology II: Lab	
BIO 200	Medical Terminology	
BIO 206	Microbiology	
BIO 206L	Microbiology: Lab	
BIO 209	Anatomy/Physiology I	
BIO 209L	Anatomy/Physiology I: Lab	
BIO 210	Anatomy/Physiology II	
BIO 210L	Anatomy/Physiology II: Lab	
<b>BIO/CHEM Electives:</b>		<b>12</b>
BIO 304	Immunology	
BIO/CHEM 307	Essential Biochemistry	
BIO 402	CH: Genetics	

BIO/CHEM 390 Biology Internship

Biology/Chemistry electives(s) 300-level or higher

<b>Chemistry</b>		<b>16</b>
CHEM 101	FD:T1:Princ of Chemistry I	
CHEM 101L	Principles of Chemistry I: Lab	
CHEM 102	Principles of Chemistry II	
CHEM 102L	Principles of Chemistry II:Lab	
CHEM 208	Organic Chemistry I	
CHEM 201L	Organic Chemistry I: Lab	
CHEM 209	Organic Chemistry II	
CHEM 202L	Organic Chemistry II: Lab	
CHEM 210	Organic Chemistry III	2
<b>Mathematics</b>		<b>5-6</b>
MATH 155	Elementary Functions I or MATH 1Elementary Functions II	
MATH 210A	Calculus I	
MATH 211	Calculus II	
MATH 221	Statistics	
<b>Philosophy</b>		<b>3</b>
PHIL 304	H3:TH1:TH2: Bioethics	
<b>Physics</b>		<b>8</b>
PHYS 101	Principles of Physics I	
PHYS 101L	Principles of Physics I: Lab	
PHYS 102	Principles of Physics II	
PHYS 102L	Principles of Physics II: Lab	

- Student also must fulfill requirements of hospital-based program. See Division Chair for program details.*