Chemistry/Biochemistry, BS



NWFSC Course

WF Equivalent UWF Course

Course # Course Title CC Communications General Education ENC1101 English Composition 3 ENC1102 English Composition 5 ENC1102 English Composition 6 ENC1102 English Composition 7 ENC						
ENC1101 English Composition I 3 ENC1101 English Composition I ENC1102 English Composition II 3 ENC1102 English Composition II ENC1102 English Composition I	Course #	Course Title	CC	Course #	Course Title	CC
ENC1102 English Composition II 3 ENC1102 English Composition II Humanities General Education General Education Humanities 3 (Core Course) General Education Humanities 3 (Group A) General Education Humanities 3 (Humanities General Education (Group A) General Education Humanities 3 (Group A or B) Mathematics General Education MAC2311 Calculus I 4 MAC2312 Analytic Geometry and Calculus I MAC2312 Calculus II 4 MAC2312 Analytic Geometry and Calculus II Natural Sciences General Education BSC1010C Principles of Biology I 4 CHM2045+L General Chemistry I + Lab CHM1045C College Chemistry I 4 CHM2045+L General Education (Group A) History/Government Social Science 3 Social Science General Education (Group A) History/Government Social Science 3 (Group A or B) General Education Electives CHM1046C College Chemistry II 4 CHM2046+L General Chemistry II + Lab Foreign Language I or Elective 3-4 Foreign Language I or Elective Electives CHM2210C Organic Chemistry II 4 CHM2210+L Organic Chemistry II + Lab PHY2048C General Physics with Calc I 4 PHY2049+L Calculus-Based Physics II + Lab PHY2049C General Physics with Calc II 4 PHY2049+L Calculus-Based Physics II + Lab	Communica	ations General Education				
Humanities General Education General Education Humanities 3 (Core Course) General Education Humanities 3 (Group A) General Education Humanities 3 (Group A or B) Mathematics General Education MAC2311 Calculus I 4 MAC2311 Analytic Geometry and Calculus I MAC2312 Calculus II 4 MAC2312 Analytic Geometry and Calculus I MAC2312 Calculus II 4 MAC2312 Analytic Geometry and Calculus I MAC2312 Calculus II 4 MAC2312 Analytic Geometry and Calculus I MAC2312 Calculus II 4 MAC2312 Analytic Geometry and Calculus I MAC2312 Calculus II 4 MAC2312 Analytic Geometry and Calculus II MAC2312 Calculus II 4 MAC2312 Analytic Geometry and Calculus II MAC2312 Calculus II MAC2312 Calculus II 4 MAC2312 Analytic Geometry and Calculus II MAC2312 Calculus II 4 CHM2045+L General Chemistry I + Lab CHM2045+L General Chemistry I + Lab CHM2045+L General Education (Group A) Social Science General Education (Group A) Social Science General Education (Group A) Social Science General Education (Group A or B) General Education Electives CHM1046C College Chemistry II 4 CHM2046+L General Chemistry II + Lab Foreign Language I or Elective Electives CHM210C Organic Chemistry II 4 CHM2210+L Organic Chemistry II + Lab PHY2048C General Physics with Calc I 4 PHY2048+L Calculus-Based Physics II + Lab PHY2049C General Physics with Calc II 4 PHY2049+L Calculus-Based Physics II + Lab PHY2049C General Physics with Calc II 4 PHY2049+L Calculus-Based Physics II + Lab	ENC1101	English Composition I				3
General Education Humanities 3 (Core Course) General Education Humanities 3 (Group A) General Education Humanities 3 (Group A or B) Mathematics General Education MAC2311 Calculus I 4 MAC2311 Analytic Geometry and Calculus I MAC2312 Calculus II 4 MAC2312 Analytic Geometry and Calculus II MAC2312 Calculus II 4 MAC2312 Analytic Geometry and Calculus II MAC2312 Calculus II 4 MAC2312 Analytic Geometry and Calculus II MAC2312 Calculus II 4 MAC2312 Analytic Geometry and Calculus II MAC2312 Calculus II 4 MAC2312 Analytic Geometry and Calculus II MAC2312 Calculus II 4 MAC2312 Analytic Geometry and Calculus II MAC2312 Calculus II MAC2312 Analytic Geometry and Calculus II MAC2312 Calculus II MAC2312 Analytic Geometry and Calculus II MAC2312 Calculus II MAC2312 Analytic Geometry and Calculus II MAC2312 Calculus II Social Sciences General Education CHM2045+L General Chemistry I + Lab CHM2045+L General Chemistry I + Lab Social Science General Education (Group A) Social Science General Education (Group A) To Social Science General E	ENC1102	English Composition II	3	ENC1102	English Composition II	3
(Core Course) General Education Humanities 3 (Core or General) Mathematics General Education MAC2311 Calculus I 4 MAC2311 Analytic Geometry and Calculus I MAC2312 Calculus II 4 MAC2312 Analytic Geometry and Calculus II MAC2312 Calculus II 4 MAC2312 Analytic Geometry and Calculus II Matural Sciences General Education BSC1010C Principles of Biology I 4 BSC2010+L Biology I + Lab CHM2045+L General Chemistry I + Lab Social Sciences General Education* General Education Social Science 3 Social Science General Education (Group A) History/Government Social Science 3 Social Science General Education (Group A) History/Government Social Science 3 Social Science General Education (Group A or B) General Education Electives CHM1046C College Chemistry II 4 CHM2046+L General Chemistry II + Lab Foreign Language I or Elective 3-4 Foreign Language I or Elective Electives CHM2210C Organic Chemistry I 4 CHM2210+L Organic Chemistry II + Lab CHM2211C Organic Chemistry II 4 CHM2211+L Organic Chemistry II + Lab PHY2048C General Physics with Calc I 4 PHY2048+L Calculus-Based Physics I + Lab PHY2049C General Physics with Calc II 4 PHY2049+L Calculus-Based Physics II + Lab	Humanities	General Education				
(Core or General) Mathematics General Education MAC2311 Calculus I 4 MAC2312 Analytic Geometry and Calculus I MAC2312 Calculus II 4 MAC2312 Analytic Geometry and Calculus II MAC2312 Calculus II 4 MAC2312 Analytic Geometry and Calculus II Matural Sciences General Education BSC1010C Principles of Biology I 4 BSC2010+L Biology I + Lab CHM1045C College Chemistry I 4 CHM2045+L General Chemistry I + Lab Social Sciences General Education* General Education Social Science 3 Social Science General Education (Group A) History/Government Social Science 3 Social Science General Education (Group A) History/Government Social Science 3 Social Science General Education (Group A or B) General Education Electives CHM1046C College Chemistry II 4 CHM2046+L General Chemistry II + Lab Foreign Language I or Elective 3-4 Foreign Language I or Elective Electives CHM2210C Organic Chemistry I 4 CHM2210+L Organic Chemistry II + Lab CHM2211C Organic Chemistry II 4 CHM2211+L Organic Chemistry II + Lab PHY2048C General Physics with Calc I 4 PHY2048+L Calculus-Based Physics I + Lab PHY2049C General Physics with Calc II 4 PHY2049+L Calculus-Based Physics II + Lab			3			3
MAC2311 Calculus I 4 MAC2312 Analytic Geometry and Calculus II MAC2312 Calculus II 4 MAC2312 Analytic Geometry and Calculus II Natural Sciences General Education BSC1010C Principles of Biology I 4 CHM2045+L General Chemistry I + Lab CHM1045C College Chemistry I 4 CHM2045+L General Education (Group A) History/Government Social Science 3 Social Science General Education (Group A or B) General Education Flectives CHM1046C College Chemistry II 4 CHM2046+L General Chemistry II + Lab Foreign Language I or Elective 3-4 Foreign Language I or Elective Electives CHM2210C Organic Chemistry II 4 CHM2210+L Organic Chemistry II + Lab CHM2211C Organic Chemistry II 4 CHM2211+L Organic Chemistry II + Lab PHY2048C General Physics with Calc I 4 PHY2048+L Calculus-Based Physics II + Lab PHY2049C General Physics with Calc II 4 PHY2049+L Calculus-Based Physics II + Lab			3			3
MAC2312 Calculus II 4 MAC2312 Analytic Geometry and Calculus II Natural Sciences General Education BSC1010C Principles of Biology I 4 CHM2045+L General Chemistry I + Lab Social Sciences General Education* General Education Social Science 3 Social Science General Education (Group A) History/Government Social Science 3 Social Science General Education (Group A) History/Government Social Science 3 General Education* General Education Electives CHM1046C College Chemistry II 4 CHM2046+L General Chemistry II + Lab Foreign Language I or Elective 3-4 Foreign Language I or Elective Electives CHM2210C Organic Chemistry II 4 CHM2210+L Organic Chemistry II + Lab CHM2211C Organic Chemistry II 4 CHM2211+L Organic Chemistry II + Lab PHY2048C General Physics with Calc I 4 PHY2049+L Calculus-Based Physics II + Lab PHY2049C General Physics with Calc II 4 PHY2049+L Calculus-Based Physics II + Lab	Mathematic	s General Education				
Natural Sciences General Education BSC1010C Principles of Biology I	MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
BSC1010C Principles of Biology I 4 CHM1045C College Chemistry I 4 CHM2045+L General Chemistry I + Lab Social Sciences General Education* General Education Social Science 3 General Education** General Education** General Education** CHM1046C College Chemistry II 4 Foreign Language I or Elective 3-4 Electives CHM2010C Organic Chemistry II 4 CHM2210C Organic Chemistry II 4 CHM2211C Organic Chemistry II 4 CHM2211C Organic Chemistry II 4 CHM2211C Organic Chemistry II 4 CHM2211L Organic Chemistry II 4 CHM	MAC2312	Calculus II	4	MAC2312	Analytic Geometry and Calculus II	4
CHM1045C College Chemistry I 4 CHM2045+L General Chemistry I + Lab Social Sciences General Education* General Education Social Science 3 Social Science General Education (Group A) History/Government Social Science 3 Social Science General Education General Education** General Education** CHM1046C College Chemistry II 4 CHM2046+LGeneral Chemistry II + Lab Foreign Language I or Elective 3-4 Foreign Language I or Elective Electives CHM2210C Organic Chemistry II 4 CHM2210+L Organic Chemistry II + Lab CHM2211C Organic Chemistry II 4 CHM2211+L Organic Chemistry II + Lab PHY2048C General Physics with Calc I 4 PHY2049+L Calculus-Based Physics II + Lab PHY2049C General Physics with Calc II 4 PHY2049+L Calculus-Based Physics II + Lab	Natural Scie	ences General Education				
Social Sciences General Education* General Education Social Science 3 History/Government Social Science 3 General Education** General Education** General Education** CHM1046C College Chemistry II 4 Foreign Language I or Elective 3-4 CHM2210C Organic Chemistry II 4 CHM2211C Organic Chemistry II 4 CHM2211C Organic Chemistry II 4 CHM2211C Organic Chemistry II 4 CHM2211L Organic Chemistry II + Lab CHM22048C General Physics with Calc II 4 CHM22049L Calculus-Based Physics II + Lab	BSC1010C	Principles of Biology I	4	BSC2010+I	L Biology I + Lab	4
General Education Social Science 3 Social Science General Education (Group A) History/Government Social Science 3 Social Science General Education (Group A or B) General Education** (Group A or B) General Education Electives CHM1046C College Chemistry II 4 CHM2046+L General Chemistry II + Lab Foreign Language I or Elective 3-4 Foreign Language I or Elective Electives CHM2210C Organic Chemistry I 4 CHM2210+L Organic Chemistry I + Lab CHM2211C Organic Chemistry II 4 CHM2211+L Organic Chemistry II + Lab PHY2048C General Physics with Calc I 4 PHY2048+L Calculus-Based Physics I + Lab PHY2049C General Physics with Calc II 4 PHY2049+L Calculus-Based Physics II + Lab	CHM1045C	College Chemistry I	4	CHM2045+I	L General Chemistry I + Lab	4
(Group A) History/Government Social Science 3 General Education** CHM1046C College Chemistry II 4 Foreign Language I or Elective 3-4 CHM2210C Organic Chemistry I 4 CHM2210L Organic Chemistry II 4 CHM2211C Organic Chemistry II 4 CHM2211L Organic Chemistry II + Lab	Social Scier	nces General Education*				
General Education** General Education Electives CHM1046C College Chemistry II		General Education Social Science	3			3
CHM1046C College Chemistry II 4 CHM2046+LGeneral Chemistry II + Lab Foreign Language I or Elective 3-4 Foreign Language I or Elective Electives CHM2210C Organic Chemistry I 4 CHM2210+L Organic Chemistry I + Lab CHM2211C Organic Chemistry II 4 CHM2211+L Organic Chemistry II + Lab PHY2048C General Physics with Calc I 4 PHY2048+L Calculus-Based Physics I + Lab PHY2049C General Physics with Calc II 4 PHY2049+L Calculus-Based Physics II + Lab			e 3			3
Foreign Language I or Elective 3-4 Foreign Language I or Elective Electives CHM2210C Organic Chemistry I 4 CHM2210+L Organic Chemistry I + Lab CHM2211C Organic Chemistry II 4 CHM2211+L Organic Chemistry II + Lab PHY2048C General Physics with Calc I 4 PHY2048+L Calculus-Based Physics I + Lab PHY2049C General Physics with Calc II 4 PHY2049+L Calculus-Based Physics II + Lab	General Edu	ucation Electives				
Electives CHM2210C Organic Chemistry I	CHM1046C	College Chemistry II	4	CHM2046+	LGeneral Chemistry II + Lab	4
CHM2210C Organic Chemistry I 4 CHM2210+L Organic Chemistry I + Lab CHM2211C Organic Chemistry II 4 CHM2211+L Organic Chemistry II + Lab PHY2048C General Physics with Calc I 4 PHY2048+L Calculus-Based Physics I + Lab PHY2049C General Physics with Calc II 4 PHY2049+L Calculus-Based Physics II + Lab		Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
CHM2211C Organic Chemistry II 4 CHM2211+L Organic Chemistry II + Lab PHY2048C General Physics with Calc I 4 PHY2048+L Calculus-Based Physics II + Lab PHY2049C General Physics with Calc II 4 PHY2049+L Calculus-Based Physics II + Lab	Electives					
PHY2048C General Physics with Calc I 4 PHY2048+L Calculus-Based Physics I + Lab PHY2049C General Physics with Calc II 4 PHY2049+L Calculus-Based Physics II + Lab	CHM2210C	Organic Chemistry I	4	CHM2210+I	L Organic Chemistry I + Lab	4
PHY2049C General Physics with Calc II 4 PHY2049+L Calculus-Based Physics II + Lab		•	4			4
		<u> </u>			-	4
Foreign Language II or Elective(s) 3-4 Foreign Language II or Elective	PHY2049C	•		PHY2049+I	•	4
		Foreign Language II or Elective(s)	3-4		Foreign Language II or Elective	3
Total College Credit Hours 60 Total College Credit Hours	Total College Credit Hours 6		60	Total Colle	ge Credit Hours	60

Note: In addition to the University's general requirements, students seeking a UWF Hal Marcus College of Science and Engineering degree must meet additional requirements. Please refer to the **course catalog**.

^{*} If History/Government Social Science is General, then the other must be Core.

^{**} AMH2020 or POS2041 is required if Civic Literacy Competency is not met.