

Transfer Guides

Northwest Florida State College | University of West Florida

Hal Marcus College of Science and Engineering

2023-2024



Refer to the [course catalog](#) for the most current degree planning information.

Biology, BS



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
STA2023	Statistics	3	STA2023	Statistics	3
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
Natural Sciences General Education					
BSC1010C	Principles of Biology I	4	BSC2010+L	Biology I + Lab	4
CHM1045C	College Chemistry I	4	CHM2045+L	General Chemistry I + Lab	4
Social Sciences General Education*					
	General Education Social Science	3		Social Science General Education (Group A)	3
	History/Government Social Science General Education**	3		Social Science General Education (Group A or B)	3
General Education Electives					
BSC1011C	Principles of Biology II	4	BSC2011L	Biology II + Lab	4
CHM1046C	College Chemistry II	4	CHM2046+L	General Chemistry II + Lab	4
Electives					
CHM2210C	Organic Chemistry I	4	CHM2210+L	Organic Chemistry I + Lab	4
PHY1053C	General Physics w/o Calc I	4	PHY2053+L	Algebra-Based Physics I + Lab	4
PHY1054C	General Physics w/o Calc II	4	PHY2054+L	Algebra-Based Physics II + Lab	4
or			or		
CHM2211C	Organic Chemistry II	4	CHM2211+L	Organic Chemistry II + Lab	4
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3
	Elective	0-1		Lower Division Elective	1
Total College Credit Hours		60	Total College Credit Hours		60

* 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.

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](#).

Biology Teaching, BA



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
STA2023	Statistics	3	STA2023	Statistics	3
or			or		
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
MAC1114	Trigonometry	3	MAC1114	Trigonometry	3
Natural Sciences General Education					
BSC1010C	Principles of Biology I	4	BSC2010+L	Biology I + Lab	4
CHM1045C	College Chemistry I	4	CHM2045+L	General Chemistry I + Lab	4
Social Sciences General Education*					
	General Education Social Science	3		Social Science General Education (Group A)	3
	History/Government Social Science General Education**	3		Social Science General Education (Group A or B)	3
General Education Electives					
BSC1011C	Principles of Biology II	4	BSC2011+L	Biology II + Lab	4
CHM2210C	College Chemistry II	4	CHM2046+L	General Chemistry II + Lab	4
Electives					
CHM2210C	Organic Chemistry I	4	CHM2210+L	Organic Chemistry I + Lab	4
PHY1053C	General Physics w/o Calc I	4	PHY2053+L	Algebra-Based Physics I + Lab	4
PHY1054C	General Physics w/o Calc II	4	PHY2054+L	Algebra-Based Physics II + Lab	4
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3
	Elective	0-2		Lower Division Elective	2
Total College Credit Hours		60	Total College Credit Hours		60

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

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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](#).

Biomedical Sciences, BS



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
STA2023	Statistics	3	STA2023	Elements of Statistics	3
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
Natural Sciences General Education					
BSC1010C	Principles of Biology I	4	BSC2010+L	Biology I + Lab	4
CHM1045C	College Chemistry I	4	CHM2045+L	General Chemistry I + Lab	4
Social Sciences General Education*					
	General Education Social Science	3		Social Science General Education (Group A)	3
	History/Government Social Science General Education**	3		Social Science General Education (Group A or B)	3
General Education Electives					
BSC1011C	Principles of Biology II	4	BSC2011+L	Biology II + Lab	4
CHM2210C	College Chemistry II	4	CHM2046+L	General Chemistry II + Lab	4
Electives					
CHM2210C	Organic Chemistry I	4	CHM2210+L	Organic Chemistry I + Lab	4
CHM2211C	Organic Chemistry II	4	CHM2211+L	Organic Chemistry II + Lab	4
PHY1053C	General Physics w/o Calc I	4	PHY2053+L	Algebra-Based Physics I + Lab	4
PHY1054C	General Physics w/o Calc II	4	PHY2054+L	Algebra-Based Physics II + Lab	4
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3
Total College Credit Hours		60	Total College Credit Hours		60

* 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.

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](#).

Chemistry, BA



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
MAC2312	Calculus II	4	MAC2312	Analytic Geometry and Calculus II	4
Natural Sciences General Education					
	General Education Biological Science (Core or General)	3		Natural Science General Education (Group A)	3
CHM1045C	College Chemistry I	4	CHM2045+L	General Chemistry I + Lab	4
Social Sciences General Education*					
	General Education Social Science	3		Social Science General Education (Group A)	3
	History/Government Social Science General Education**	3		Social Science General Education (Group A or B)	3
General Education Electives					
CHM1046C	College Chemistry II	4	CHM2046+L	General Chemistry II + Lab	4
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
Electives					
CHM2210C	Organic Chemistry I	4	CHM2210+L	Organic Chemistry I + Lab	4
CHM2211C	Organic Chemistry II	4	CHM2211+L	Organic Chemistry II + Lab	4
PHY1053C	General Physics w/o Calc I	4	PHY2053+L	Algebra-Based Physics I + Lab	4
or			or		
PHY2048C	General Physics with Calc I	4	PHY2048+L	Calculus-Based Physics I + Lab	4
PHY1054C	General Physics w/o Calc II	4	PHY2054+L	Algebra-Based Physics II + Lab	4
or			or		
PHY2049C	General Physics with Calc II	4	PHY2049+L	Calculus-Based Physics II + Lab	4
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3
	Elective	0-1		Lower Division Elective	1
Total College Credit Hours		60	Total College Credit Hours		60

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

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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](#).

Chemistry/Biochemistry, BA



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
MAC2312	Calculus II	4	MAC2312	Analytic Geometry and Calculus II	4
Natural Sciences General Education					
BSC1010C	Principles of Biology I	4	BSC2010+L	Biology I + Lab	4
CHM1045C	College Chemistry I	4	CHM2045+L	General Chemistry I + Lab	4
Social Sciences General Education*					
	General Education Social Science	3		Social Science General Education (Group A)	3
	History/Government Social Science General Education**	3		Social Science General Education (Group A or B)	3
General Education Electives					
CHM1046C	College Chemistry II	4	CHM2046+L	General Chemistry II + Lab	4
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
Electives					
CHM2210C	Organic Chemistry I	4	CHM2210+L	Organic Chemistry I + Lab	4
CHM2211C	Organic Chemistry II	4	CHM2211+L	Organic Chemistry II + Lab	4
PHY1053C	General Physics w/o Calc I	4	PHY2053+L	Algebra-Based Physics I + Lab	4
or			or		
PHY2048C	General Physics with Calc I	4	PHY2048+L	Calculus-Based Physics I + Lab	4
PHY1054C	General Physics w/o Calc II	4	PHY2054+L	Algebra-Based Physics II + Lab	4
or			or		
PHY2049C	General Physics with Calc II	4	PHY2049+L	Calculus-Based Physics II + Lab	4
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3
Total College Credit Hours		60	Total College Credit Hours		60

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

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Chemistry Teaching, BA



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
MAC2312	Calculus II	4	MAC2312	Analytic Geometry and Calculus II	4
Natural Sciences General Education					
	Natural Science Biological Education (Core or General)	3		Natural Science General Education (Group A or B)	3
CHM1045C	College Chemistry I	4	CHM2045+L	General Chemistry I + Lab	4
Social Sciences General Education*					
	General Education Social Science	3		Social Science General Education (Group A)	3
	History/Government Social Science General Education**	3		Social Science General Education (Group A or B)	3
General Education Electives					
CHM1046C	College Chemistry II	4	CHM2046+L	General Chemistry II + Lab	4
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
Electives					
CHM2210C	Organic Chemistry I	4	CHM2210+L	Organic Chemistry I + Lab	4
CHM2211C	Organic Chemistry II	4	CHM2211+L	Organic Chemistry II + Lab	4
PHY1053C	General Physics w/o Calc I	4	PHY2053+L	Algebra-Based Physics I + Lab	4
or			or		
PHY2048C	General Physics + Calc I	4	PHY2048+L	Calculus-Based Physics I + Lab	4
PHY1054C	General Physics w/o Calc II	4	PHY2054+L	Algebra-Based Physics II + Lab	4
or			or		
PHY2049C	General Physics with Calc II	4	PHY2049+L	Calculus-Based Physics II + Lab	4
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3
	Elective	0-1		Lower Division Elective	1
Total College Credit Hours		60	Total College Credit Hours		60

* 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.

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](#).

Chemistry, BS



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
MAC2312	Calculus II	4	MAC2312	Analytic Geometry and Calculus II	4
Natural Sciences General Education					
	General Education Biological Science (Core or General)	3		Natural Science General Education (Group A)	3
CHM1045C	College Chemistry I	4	CHM2045+L	General Chemistry I + Lab	4
Social Sciences General Education*					
	General Education Social Science	3		Social Science General Education (Group A)	3
	History/Government Social Science General Education**	3		Social Science General Education (Group A or B)	3
General Education Electives					
CHM1046C	College Chemistry II	4	CHM2046+L	General Chemistry II + Lab	4
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
Electives					
CHM2210C	Organic Chemistry I	4	CHM2210+L	Organic Chemistry I + Lab	4
CHM2211C	Organic Chemistry II	4	CHM2211+L	Organic Chemistry II + Lab	4
PHY2048C	General Physics with Calc I	4	PHY2048+L	Calculus-Based Physics I + Lab	4
PHY2049C	General Physics with Calc II	4	PHY2049+L	Calculus-Based Physics II + Lab	4
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3
	Elective	0-1		Lower Division Elective	1
Total College Credit Hours		60	Total College Credit Hours		60

* 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.

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](#).

Chemistry/Biochemistry, BS



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
MAC2312	Calculus II	4	MAC2312	Analytic Geometry and Calculus II	4
Natural Sciences General Education					
BSC1010C	Principles of Biology I	4	BSC2010+L	Biology I + Lab	4
CHM1045C	College Chemistry I	4	CHM2045+L	General Chemistry I + Lab	4
Social Sciences General Education*					
	General Education Social Science	3		Social Science General Education (Group A)	3
	History/Government Social Science General Education**	3		Social Science General Education (Group A or B)	3
General Education Electives					
CHM1046C	College Chemistry II	4	CHM2046+L	General Chemistry II + Lab	4
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
Electives					
CHM2210C	Organic Chemistry I	4	CHM2210+L	Organic Chemistry I + Lab	4
CHM2211C	Organic Chemistry II	4	CHM2211+L	Organic Chemistry II + Lab	4
PHY2048C	General Physics with Calc I	4	PHY2048+L	Calculus-Based Physics I + Lab	4
PHY2049C	General Physics with Calc II	4	PHY2049+L	Calculus-Based Physics II + Lab	4
	Foreign Language II or Elective(s)	3-4		Foreign Language II or Elective	3
Total College Credit Hours		60	Total College Credit Hours		60

* 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.

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](#).

Computer Engineering, BSCE



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
MAC2312	Calculus II	4	MAC2312	Analytic Geometry and Calculus II	4
Natural Sciences General Education					
	General Education Biological Science	3		Natural Science General Education (Group A)	3
CHM1045C	College Chemistry I	4	CHM2045+L	General Chemistry I + Lab	4
Social Sciences General Education*					
	General Education Social Science	3		Social Science General Education (Group A)	3
	History/Government Social Science General Education**	3		Social Science General Education (Group A or B)	3
General Education Electives					
MAC2313	Calculus III	4	MAC2313	Analytic Geometry & Calculus III	4
MAP2302	Differential Equations	3	MAP2302	Differential Equations	3
Electives					
PHY2048C	General Physics with Calculus I	4	PHY2048+L	Calculus-Based Physics I + Lab	4
PHY2049C	General Physics with Calculus II	4	PHY2049+L	Calculus-Based Physics II + Lab	4
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
	Foreign Language II or Elective	3-4		Foreign Language II or Lower Division Electives	3
	Electives	8-9		Lower Division Electives	6
Total College Credit Hours		60	Total College Credit Hours		60

* 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.

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](#).

Computer Science, BS



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
PHI2600	Ethics (recommended)	3	PHI2603	Ethics in Contemporary Society	3
Mathematics General Education					
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
MAC2312	Calculus II	4	MAC2312	Analytic Geometry and Calculus II	4
Natural Sciences General Education*					
	General Education Biological Science for Science majors	3		Natural Science General Education (Group A)	3
	General Education Physical Science for Science majors	3		Natural Science General Education (Group A or B)	3
Social Sciences General Education					
ECO2013	Economics I	3	ECO2013	Principles of Economics Macro	3
	History/Government Social Science General Education**	3		Social Science General Education (Group A or B)	3
General Education Electives					
PHY2048C	General Physics with Calculus I	4	PHY2048+L	Calculus-Based Physics I + Lab	4
PHY2049C	General Physics with Calculus II	4	PHY2049+L	Calculus-Based Physics II + Lab	4
Electives					
COPxxxx	Introductory Programming in C, C++, Java, Pascal, or equivalent	3	COPxxxx	Introductory Programming in C, C++, Java, Pascal, or equivalent	3
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3
	Electives	4-6		Lower Division Electives	6
Total College Credit Hours		60	Total College Credit Hours		60

* Includes: AST1002, BOT1010C, BSC1085C, BSC1086C, BSC1010C, BSC1011C, CHM1045, CHM1046C, ESC1000, EVR1001C, and GLY2010C.

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

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Construction Management, BS



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
MAC1105	College Algebra	3	MAC1105	College Algebra	3
STA2023	Statistics	3	STA2023	Elements of Statistics	3
Natural Sciences General Education					
	General Education Biological Science (Core or General)	3		Natural Science General Education (Group A)	3
PHY1053C	General Physics w/o Calculus I	4	PHY2053+L	Algebra-Based Physics I + Lab	4
Social Sciences General Education					
ECO2013	Economics I	3	ECO2013	Principles of Economics Macro	3
	History/Government Social Science General Education*	3		Social Science General Education (Group A or B)	3
General Education Electives					
MAC1140	Precalculus	3	MAC1140	Precalculus	3
MAC1114	Trigonometry	3	MAC1114	Trigonometry	3
Electives					
ECO2023	Economics II	3	ECO2023	Principles of Economics Micro	3
MAC2233	Business Calculus	3	MAC2233	Calculus + Business Applications	3
or			or		
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
PHY1054C	General Physics w/o Calculus II	4	PHY2054	Algebra-Based Physics II	3
			and		
			PHY2054+L	Algebra-Based Physics II Lab	1
ACG2021	Financial Accounting	3	ACG2021	Principles of Financial Accounting	3
or			or		
ACG1001	Accounting I	3	ACG1001	Accounting I	3
and			and		
ACG2011	Accounting II	3	ACG2011	Accounting II	3
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3-4
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3-4
	Elective	0-4		Lower Division Elective(s)	3-4
Total College Credit Hours		60	Total College Credit Hours		60

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

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](#).

Cybersecurity, BS



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
PHI2600	Ethics (recommended)	3	PHI2603	Ethics in Contemporary Society	3
Mathematics General Education					
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
MAC2312	Calculus II	4	MAC2312	Analytic Geometry and Calculus II	4
Natural Sciences General Education					
	General Education Biological Science (Core or General)	3		Natural Science General Education (Group A)	3
PHY2048C	General Physics with Calculus I	4	PHY2048+L	Calculus-Based Physics I + Lab	4
Social Sciences General Education					
ECO2013	Economics I (recommended)	3	ECO2013	Principles of Economics Macro	3
	History/Government Social Science General Education*	3		Social Science General Education (Group A or B)	3
General Education Electives					
STA2023	Statistics	3	STA2023	Elements of Statistics	3
	Science for Science majors**	3-4		Science for Science majors**	3
Electives					
COP1000	Introductory Programming Concepts Logic	3		Lower Division Electives	3
COP2224	Programming in C++	3	COP2334	Programming in C++	3
or			or		
COP2800	Intro to Java Programming	3	COP2253	Programming Using Java	3
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3-4
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3-4
	Electives	7-9		Electives	9
Total College Credit Hours		60	Total College Credit Hours		60

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

** Includes: AST1002, BOT1010C, BSC1085C, BSC1086C, BSC1010C, BSC1011C, CHM1045, CHM1046C, ESC1000, EVR1001C, and GLY2010C.

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](#).

Earth and Environmental Science Teaching, BA



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
MAC1140	Precalculus	3	MAC1140	Precalculus Algebra	3
MAC1114	Trigonometry	3	MAC1114	Trigonometry	3
Natural Sciences General Education					
BSC1005	General Biology	3	BSC1005	General Biology for Non-Majors	3
CHM1045C	College Chemistry I	4	CHM2045+L	General Chemistry I + Lab	4
Social Sciences General Education*					
	General Education Social Science	3		Social Science General Education (Group A)	3
	History/Government Social Science General Education**	3		Social Science General Education (Group A or B)	3
General Education Electives					
BOT1010C	Botany	4	BOT2010+L	General Botany + Lab	4
CHM1046C	College Chemistry II	4	CHM2046+L	General Chemistry II + Lab	4
Electives					
STA2023	Statistics	3	STA2023	Elements of Statistics	3
BSC1005L	General Biology Lab	1	BSC1005L	General Biology for Non-Majors Lab	1
GLY2010C	Principles of Geology I	4	GLY2010+L	Physical Geology + Lab	4
or			or		
ESC1000	Earth Science	3	ESC2000	Introduction to Earth Science	3
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3
	Electives	5-8		Lower Division Electives	7-8
Total College Credit Hours		60	Total College Credit Hours		60

* 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.

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](#).

Electrical Engineering, BSEE



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
MAC2312	Calculus II	4	MAC2312	Analytic Geometry and Calculus II	4
Natural Sciences General Education					
	General Education Biological Science (Core or General)	3		Natural Science General Education (Group A)	3
CHM1045C	College Chemistry I	4	CHM2045+L	General Chemistry + Lab	4
Social Sciences General Education*					
	General Education Social Science	3		Social Science General Education (Group A)	3
	History/Government Social Science General Education**	3		Social Science General Education (Group A or B)	3
General Education Electives					
MAC2313	Calculus III	4	MAC2313	Analytic Geometry and Calculus III	4
MAP2302	Differential Equations	3	MAP2302	Differential Equations	3
Electives					
PHY2048C	General Physics with Calculus I	4	PHY2048+L	Calculus-Based Physics + Lab	4
PHY2049C	General Physics with Calculus II	4	PHY2049+L	Calculus-Based Physics II + Lab	4
	Foreign Language I or Elective	3-4		Foreign Language II or Elective	3-4
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3-4
	Electives	8-9		Lower Division Electives	9
Total College Credit Hours		60	Total College Credit Hours		60

* 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.

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](#).

Engineering Technology, BS



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
MAC1114	Trigonometry	3	MAC1114	Trigonometry	3
Natural Sciences General Education					
	General Education Biological Science (Core or General)	3		Natural Science General Education (Group A or B)	3
CHM1045C	College Chemistry I	4	CHM2045+L	General Chemistry I + Lab	4
Social Sciences General Education*					
	General Education Social Science	3		Social Science General Education (Group A)	3
	History/Government Social Science General Education**	3		Social Science General Education (Group A or B)	3
General Education Electives					
MAC1140	Precalculus I	3	MAC1140	Precalculus Algebra	3
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
Electives					
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3
	Electives	17-19		Lower Division Electives	19
Total College Credit Hours		60	Total College Credit Hours		60

* 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.

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](#).

Environmental Science, BS

ENVIRONMENTAL MANAGEMENT SPECIALIZATION



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
MAC1140	Precalculus	3	MAC1140	Precalculus Algebra	3
STA2023	Statistics	3	STA2023	Elements of Statistics	3
Natural Sciences General Education					
BSC1005	General Biology	3	BSC1005	General Biology for Non-Majors	3
CHM1045C	College Chemistry I	4	CHM2045+L	General Chemistry I + Lab	4
Social Sciences General Education					
ANT2000 or PSY2012	Anthropology (recommended) Psychology (recommended)	3 3	ANT2000 or PSY2012	Intro to Anthropology General Psychology	3 3
POS1041	American Government	3	POS2041	American Politics	3
General Education Electives					
BOT1010C	Botany	4	BOT2010L	General Botany	4
CHM1046C	College Chemistry II	4	CHM2046+L	General Chemistry II + Lab	4
Electives					
GLY2010C or ESC1000	Principles of Geology I Earth Science	4 3	GLY2010+L or ESC2000	Physical Geology + Lab Introduction to Earth Science	4 3
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3
BSC1005L	General Biology Lab	1	BSC1005L	General Biology for Non-Majors Lab 1	1
	Electives	8-11		Lower Division Electives	10-11
Total College Credit Hours		60	Total College 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](#).

Environmental Science, BS

NATURAL SCIENCE SPECIALIZATION



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
MAC2311	Calculus	4	MAC2311	Analytic Geometry and Calculus I	4
STA2023	Statistics	3	STA2023	Elements of Statistics	3
Natural Sciences General Education					
BSC1010C	Botany	4	BSC2010+L	General Botany + Lab	4
CHM1045C	College Chemistry I	4	CHM2045+L	General Chemistry I + Lab	4
Social Sciences General Education					
ANT2000	Anthropology (recommended)	3	ANT2000	Introduction to Anthropology	3
or			or		
PSY2012	Psychology (recommended)	3	PSY2012	General Psychology	3
POS1041	American Government	3	POS2041	American Politics	3
General Education Electives					
PHY2048C	General Physics with Calculus I	4	PHY2048+L	Calculus-Based Physics + Lab	4
or			or		
PHY1053C	General Physics w/o Calculus I	4	PHY2053+L	Algebra-Based Physics 1 + Lab	4
CHM1046C	College Chemistry II	4	CHM2046+L	General Chemistry II + Lab	4
Electives					
GLY2010C	Principles of Geology I	4	GLY2010+L	Physical Geology I + Lab	4
or			or		
ESC1000	Earth Science	3	ESC2000	Introduction to Earth Science	3
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3
	Electives	7-10		Lower Division Electives	9-10
Total College Credit Hours		60	Total College 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](#).

Information Technology, BS



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
PHI2600	Ethics	3	PHI2603	Ethics in Contemporary Society	3
Mathematics General Education					
STA2023	Statistics	3	STA2023	Elements of Statistics	3
MAC2233	Business Calculus	3	MAC2233	Calculus + Business Applications	3
Natural Sciences General Education*					
	General Education Biological Science	3		Natural Science General Education (Group A)	3
	General Education Physical Science	3		Natural Science General Education (Group A or B)	3
Social Sciences General Education					
ECO2013	Economics I	3	ECO2013	Principles of Economics Macro	3
	History/Government Social Science General Education**	3		Social Science General Education (Group A or B)	3
General Education Electives					
PSY2012	Psychology	3	PSY2012	General Psychology	3
	General Education Elective	3		General Education Elective	3
Electives					
CGS1570	Computer Apps for Business	3	CGS2570	Personal Computer Apps	3
COP1000	Intro Programming Concepts Logic	3		Lower Division Elective	3
COP2224	Programming in C++	3	COP2334	Programming in C++	3
or			or		
COP2800	Introduction to Java Programming	3	COP2253	Programming Using Java	3
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3
	Electives	7-9		Lower Division Electives	9
Total College Credit Hours		60	Total College Credit Hours		60

* If Biological or Physical Science is General, then the other must be Core.

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

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](#).

Interdisciplinary Sciences, BS

BIOLOGY AND COMPUTER SCIENCE TRACK



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
STA2023	Statistics	3	STA2023	Elements of Statistics	3
or					
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
MAC1114	Trigonometry	3	MAC1114	Trigonometry	3
Natural Sciences General Education					
BSC1010C	Principles of Biology I	4	BSC2010+L	Biology + Lab	4
CHM1045C	College Chemistry	4	CHM2045+L	General Chemistry + Lab	4
Social Sciences General Education*					
	General Education Social Science	3		Social Science General Education (Group A)	3
	History/Government Social Science General Education**	3		Social Science General Education (Group A or B)	3
General Education Electives					
BSC1011C	Principles of Biology II	4	BSC2011+L	Biology II + Lab	4
CHM1046C	College Chemistry II	4	CHM2046+L	General Chemistry + Lab	4
Electives					
PHY1053C	General Physics w/o Calculus I	4	PHY2053+L	Algebra-Based Physics I + Lab	4
or			or		
PHY2048C	General Physics w/o Calculus I	4	PHY2048+L	Calculus-Based Physics I + Lab	4
PHY1054C	General Physics w/o Calculus II	4	PHY2054+L	Algebra-Based Physics II + Lab	4
or			or		
PHY2049C	General Physics with Calculus II	4	PHY2049+L	Calculus-Based Physics II + Lab	4
CHM2210C	Organic Chemistry I	4	CHM2210+L	Organic Chemistry I + Lab	4
COP1000	Introduction to Programming Concepts Logic	3		Lower Division Electives	3
COPxxxx	Programming Language in ADA, C, C++, Pascal, or equivalent	3		Programming Language in ADA, C, C++, Pascal, or equivalent	3
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3
Total College Credit Hours		60+	Total College Credit Hours		60+

* 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.

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](#).

Interdisciplinary Sciences, BS

BIOLOGY AND EARTH & ENVIRONMENTAL SCIENCES TRACK



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
STA2023	Statistics	3	STA2023	Elements of Statistics	3
or					
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
MAC1114	Trigonometry	3	MAC1114	Trigonometry	3
Natural Sciences General Education					
BSC1010C	Principles of Biology I	4	BSC2010+L	Biology + Lab	4
CHM1045C	College Chemistry I	4	CHM2045+L	General Chemistry I + Lab	4
Social Sciences General Education*					
	General Education Social Science	3		Social Science General Education (Group A)	3
	History/Government Social Science General Education**	3		Social Science General Education (Group A or B)	3
General Education Electives					
BSC1011C	Principles of Biology II	4	BSC2011+L	Biology II + Lab	4
or			or		
BOT1010C	Botany	4	BOT1010+L	General Botany + Lab	4
CHM1046C	College Chemistry II	4	CHM2046+L	General Chemistry II + Lab	4
Electives					
PHY1053C	General Physics w/o Calculus I	4	PHY2053+L	Algebra-Based Physics I + Lab	4
or			or		
PHY2048C	General Physics w/o Calculus I	4	PHY2048+L	Calculus-Based Physics I + Lab	4
PHY1054C	General Physics w/o Calculus II	4	PHY2054+L	Algebra-Based Physics II + Lab	4
or			or		
PHY2049C	General Physics with Calculus II	4	PHY2049+L	Calculus-Based Physics II + Lab	4
GLY2010C	Principles of Geology I	4	GLY2010+L	Physical Geology + Lab	4
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3
	Elective	0-2		Lower Division Elective	1-2
Total College Credit Hours		60	Total College Credit Hours		60

* 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.

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](#).

Interdisciplinary Sciences, BS

COMPUTER SCIENCE AND EARTH & ENVIRONMENTAL SCIENCE TRACK



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
STA2023	Statistics	3	STA2023	Elements of Statistics	3
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
Natural Sciences General Education					
BSC1010C	Principles of Biology I	4	BSC2010+L	Biology I + Lab	4
CHM1045C	College Chemistry I	4	CHM2045+L	General Chemistry I + Lab	4
Social Sciences General Education*					
	General Education Social Science	3		Social Science General Education (Group A)	3
	History/Government Social Science General Education**	3		Social Science General Education (Group A or B)	3
General Education Electives					
BSC1011C	Principles of Biology II	4	BSC2011+L	Biology II + Lab	4
CHM1046C	College Chemistry II	4	CHM2046+L	General Chemistry II + Lab	4
Electives					
PHY1053C	General Physics w/o Calculus I	4	PHY2053+L	Algebra-Based Physics I + Lab	4
or			or		
PHY2048C	General Physics w/o Calculus I	4	PHY2048+L	Calculus-Based Physics I + Lab	4
PHY1054C	General Physics w/o Calculus II	4	PHY2054+L	Algebra-Based Physics II + Lab	4
or			or		
PHY2049C	General Physics + Calculus II	4	PHY2049+L	Calculus-Based Physics II + Lab	4
GLY2010C	Principles of Geology I	4	GLY2010+L	Physical Geology + Lab	4
COP1000	Introduction to Programming Concepts Logic	3		Lower Division Elective	3
COPxxxx	Programming Language in ADA, C, C++, Pascal, or equivalent	3		Programming Language in ADA, C, C++, Pascal, or equivalent	3
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3
Total College Credit Hours		60+	Total College Credit Hours		60

* 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.

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](#).

Marine Biology, BS



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
STA2023	Statistics	3	STA2023	Elements of Statistics	3
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
Natural Sciences General Education					
BSC1010C	Principles of Biology I	4	BSC2010+L	Biology + Lab	4
CHM1045C	College Chemistry I	4	CHM2045+L	General Chemistry I + Lab	4
Social Sciences General Education*					
	General Education Social Science	3		Social Science General Education (Group A)	3
	History/Government Social Science General Education**	3		Social Science General Education (Group A or B)	3
General Education Electives					
BSC1011C	Principles of Biology II	4	BSC2011+L	Biology II + Lab	4
CHM1046C	College Chemistry II	4	CHM2046+L	General Chemistry II + Lab	4
Electives					
PHY1053C	General Physics w/o Calculus I	4	PHY2053+L	Algebra-Based Physics I + Lab	4
or			or		
CHM2210C	Organic Chemistry I	4	CHM2210+L	Organic Chemistry I + Lab	4
PHY1054	General Physics w/o Calculus II	4	PHY2054+L	Algebra-Based Physics II + Lab	4
or			or		
CHM2211C	Organic Chemistry I	4	CHM2211+L	Organic Chemistry II + Lab	4
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3
	Electives	3-5		Lower Division Electives	5
Total College Credit Hours		60	Total College Credit Hours		60

* 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.

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](#).

Mathematics, BS



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
MAC2312	Calculus II	4	MAC2312	Analytic Geometry and Calculus II	4
Natural Sciences General Education					
	Lab-Based Science Course*	4		Lab-Based Science Course*	4
	General Education Natural Science**	3-4		Natural Science General Education (Group A or B)	3
Social Sciences General Education***					
	General Education Social Science	3		Social Science General Education (Group A)	3
	History/Government Social Science General Education****	3		Social Science General Education (Group A or B)	3
General Education Electives					
MAC2313	Calculus III	4	MAC2313	Analytic Geometry and Calculus III	4
MAP2302	Differential Equations	3	MAP2302	Differential Equations	3
Electives					
COP1000	Intro Programming Concepts Logic	3	COP1000	Intro Programming Concepts Logic	3
COPxxxx	Programming Language	3	COPxxxx	Programming Language	3
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3
	Electives	4-8		Lower Division Electives	8
Total College Credit Hours		60	Total College Credit Hours		60

* BSC1010C, BSC1085C, CHM1045C, PHY1053C, or PHY2048C will satisfy this requirement.

** If Lab-Based Science course is Biological, this must be Physical; if Physical, this must be Biological.

*** 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.

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](#).

Mathematics Teaching, BS



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
MAC2312	Calculus II	4	MAC2312	Analytic Geometry and Calculus II	4
Natural Sciences General Education					
	Lab-Based Science Course*	4		Lab-Based Science Course*	4
	General Education Natural Science**	3-4		Natural Science General Education (Group A or B)	3
Social Sciences General Education***					
	General Education Social Science	3		Social Science General Education (Group A)	3
	History/Government Social Science General Education****	3		Social Science General Education (Group A or B)	3
General Education Electives					
MAC2313	Calculus III	4	MAC2313	Analytic Geometry and Calculus III	4
MAP2302	Differential Equations	3	MAP2302	Differential Equations	3
Electives					
COP1000	Intro Programming Concepts Logic	3	COP1000	Intro Programming Concepts Logic	3
COPxxxx	Programming Language	3	COPxxxx	Programming Language	3
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3
	Electives	4-8		Lower Division Electives	8
Total College Credit Hours		60	Total College Credit Hours		60

* BSC1010C, BSC1085C, CHM1045C, PHY1053C, or PHY2048C will satisfy this requirement.

** If Lab-Based Science course is Biological, this must be Physical; if Physical, this must be Biological.

*** 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.

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](#).

Mechanical Engineering, BSME



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
MAC2312	Calculus II	4	MAC2312	Analytic Geometry and Calculus II	4
Natural Sciences General Education					
	General Education Biological Science (Core or General)	3		Natural Science General Education (Group A)	3
CHM1045C	College Chemistry	4	CHM2045+L	General Chemistry I + Lab	4
Social Sciences General Education*					
	General Education Social Science	3		Social Science General Education (Group A)	3
	History/Government Social Science General Education**	3		Social Science General Education (Group A or B)	3
General Education Electives					
MAC2313	Calculus III	4	MAC2313	Analytic Geometry and Calculus III	4
MAP2302	Differential Equations	3	MAP2302	Differential Equations	3
Electives					
PHY2048C	General Physics with Calculus I	4	PHY2048+L	Calculus-Based Physics I + Lab	4
PHY2049C	General Physics with Calculus II	4	PHY2049+L	Calculus-Based Physics II + Lab	4
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3
	Electives	8-9		Lower Division Electives	8
Total College Credit Hours		60	Total College Credit Hours		60

* 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.

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](#).

Engineering Physics, BS



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
MAC2312	Calculus II	4	MAC2312	Analytic Geometry and Calculus II	4
Natural Sciences General Education					
	General Education Biological Science (Core or General)	3		Natural Science General Education (Group A)	3
CHM1045C	College Chemistry I	4	CHM2045+L	General Chemistry I + Lab	4
Social Sciences General Education*					
	General Education Social Science	3		Social Science General Education (Group A)	3
	History/Government Social Science General Education**	3		Social Science General Education (Group A or B)	3
General Education Electives					
CHM1046C	College Chemistry II	4	CHM2046+L	General Chemistry II + Lab	4
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
Electives					
PHY2048C	General Physics with Calculus I	4	PHY2048+L	Calculus-Based Physics I + Lab	4
PHY2049C	General Physics with Calculus II	4	PHY2049+L	Calculus-Based Physics II + Lab	4
MAC2313	Calculus III	4	MAC2313	Analytic Geometry and Calculus III	4
MAP2302	Differential Equations	3	MAP2302	Differential Equations	3
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3
	Elective	0-2		Lower Division Elective	2
Total College Credit Hours		60	Total College Credit Hours		60

* 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.

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](#).

Physics, BS



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
MAC2312	Calculus II	4	MAC2312	Analytic Geometry and Calculus II	4
Natural Sciences General Education					
	General Education Biological Science (Core or General)	3		Natural Science General Education (Group A)	3
CHM1045C	College Chemistry I	4	CHM2045+L	General Chemistry I + Lab	4
Social Sciences General Education*					
	General Education Social Science	3		Social Science General Education (Group A)	3
	History/Government Social Science General Education**	3		Social Science General Education (Group A or B)	3
General Education Electives					
CHM1046C	College Chemistry II	4	CHM2046+L	General Chemistry II + Lab	4
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
Electives					
PHY2048C	General Physics with Calculus I	4	PHY2048+L	Calculus-Based Physics I + Lab	4
PHY2049C	General Physics with Calculus II	4	PHY2049+L	Calculus-Based Physics II + Lab	4
MAC2313	Calculus III	4	MAC2313	Analytic Geometry and Calculus III	4
MAP2302	Differential Equations	3	MAP2302	Differential Equations	3
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3
	Elective	0-2		Lower Division Elective	2
Total College Credit Hours		60	Total College Credit Hours		60

* 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.

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](#).

Physics, BA



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
MAC2312	Calculus II	4	MAC2312	Analytic Geometry and Calculus II	4
Natural Sciences General Education					
	General Education Biological Science (Core or General)	3		Natural Science General Education (Group A)	3
CHM1045C	College Chemistry I	4	CHM2045+L	General Chemistry I + Lab	4
Social Sciences General Education*					
	General Education Social Science	3		Social Science General Education (Group A)	3
	History/Government Social Science General Education**	3		Social Science General Education (Group A or B)	3
General Education Electives					
CHM1046C	College Chemistry II	4	CHM2046+L	General Chemistry II + Lab	4
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
Electives					
PHY2048C	General Physics with Calculus I	4	PHY2048+L	Calculus-Based Physics I + Lab	4
PHY2049C	General Physics with Calculus II	4	PHY2049+L	Calculus-Based Physics II + Lab	4
MAC2313	Calculus III	4	MAC2313	Analytic Geometry and Calculus III	4
MAP2302	Differential Equations	3	MAP2302	Differential Equations	3
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3
	Elective	0-2		Lower Division Elective	2
Total College Credit Hours		60	Total College Credit Hours		60

* 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.

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](#).

Physics Teaching, BA



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
	General Education Humanities (Core or General)	3		Humanities General Education (Group A or B)	3
Mathematics General Education					
MAC2311	Calculus I	4	MAC2311	Analytic Geometry and Calculus I	4
MAC2312	Calculus II	4	MAC2312	Analytic Geometry and Calculus II	4
Natural Sciences General Education					
	General Education Biological Science (Core or General)	3		Natural Science General Education (Group A)	3
CHM1045C	College Chemistry I	4	CHM2045+L	General Chemistry I + Lab	4
Social Sciences General Education*					
	General Education Social Science	3		Social Science General Education (Group A)	3
	History/Government Social Science General Education**	3		Social Science General Education (Group A or B)	3
General Education Electives					
CHM1046C	College Chemistry II	4	CHM2046+L	General Chemistry II + Lab	4
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
Electives					
PHY2048C	General Physics with Calculus I	4	PHY2048+L	Calculus-Based Physics I + Lab	4
PHY2049C	General Physics with Calculus II	4	PHY2049+L	Calculus-Based Physics II + Lab	4
MAC2313	Calculus III	4	MAC2313	Analytic Geometry and Calculus III	4
MAP2302	Differential Equations	3	MAP2302	Differential Equations	3
EDF1005	Intro to Teaching Profession	3		Foreign Language II or Elective	3
	Foreign Language II or Elective	3-4		Lower Division Elective	2
Total College Credit Hours		60+	Total College Credit Hours		60

* 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.

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](#).

Software Design & Development, BS



NWFSC Course



Equivalent UWF Course

Course #	Course Title	CC	Course #	Course Title	CC
Communications General Education					
ENC1101	English Composition I	3	ENC1101	English Composition I	3
ENC1102	English Composition II	3	ENC1102	English Composition II	3
Humanities General Education					
	General Education Humanities (Core Course)	3		Humanities General Education (Group A)	3
PHI2600	Ethics (recommended)	3	PHI2603	Ethics in Contemporary Society	3
Mathematics General Education					
STA2023	Statistics	3	STA2023	Elements of Statistics	3
MAC2233	Business Calculus	3	MAC2233	Calculus + Business Applications	3
Natural Sciences General Education*					
	General Education Biological Science	3		Natural Science General Education (Group A)	3
	General Education Physical Science	3		Natural Science General Education (Group A or B)	3
Social Sciences General Education					
ECO2013	Economics	3	ECO2013	Principles of Economics Macro	3
	History/Government Social Science General Education**	3		Social Science General Education (Group A or B)	3
General Education Electives					
	General Education Elective	3		General Education Elective	3
	Foreign Language I or Elective	3-4		Foreign Language I or Elective	3
Electives					
ECO2023	Economics II	3	ECO2023	Principles of Economics Micro	3
ACG2021	Financial Accounting	3	ACG2021	Principles of Financial Accounting	3
or					
ACG2001	Accounting I	3			
and					
ACG2001	Accounting II	3			
ACG2071	Managerial Accounting	3	ACG2071	Principles of Managerial Accounting	3
CGS1570	Computer Apps for Business	3	CGS2570	Personal Computer Apps	3
COP1000	Intro to Programming Concepts	3		Lower Division Elective	3
COP2224	Programming in C++	3		C++ Equivalent	3
COP2800	Intro to Java Programming	3		Java Equivalent	3
	Foreign Language II or Elective	3-4		Foreign Language II or Elective	3
Total College Credit Hours		60+	Total College Credit Hours		60

* If Biological or Physical Science is General, then the other must be Core.

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

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](#).