

Degree Programs**NATURAL SCIENCES & MATHEMATICS****2012-2013****Biology**[BA, General/Intergrative Concentration](#)[BS, General/Intergrative Concentration](#)[BS, Biotechnical Concentration](#)[BA, Health Professions](#)[BS, Health Professions](#)[BS, Medical Technology](#)[BS, Pre-Physical Therapy Concentration](#)[BS + Doctorate Physical Therapy](#)[BS, Biochemistry/Molecular Biology](#)**Chemistry**[Chemistry, BA](#)[Chemistry, BS with A.C.S. Certification](#)[Chemistry, BS](#)[Chemistry, BS Environmental](#)[Computational Science](#)

Chemistry Concentration

Environmental Concentration

Marine Science Concentration

Math Concentration

Physics Concentration

Engineering[Engineering/Chemistry](#)[Dual Degree Program \(with N.J.I.T.\)](#)[Engineering/Physics](#)[Dual Degree Program \(with N.J.I.T. or Rutgers\)](#)[Engineering/Mathematics](#)[Dual Degree Program \(with N.J.I.T. or Rutgers\)](#)**Minors**[Biology, Chemistry,](#)[Environmental Studies,](#)[Marine Science, Mathematics](#)[and Applied Physics](#)[Geology / Math](#)**Environmental Studies**[Environmental Studies, BA](#)[Environmental Science BS](#)[Environmental Studies, BS \(concentration in Sustainability and Environmental Policy\)](#)

Environmental Science BS (concentration in

Environmental Chemistry)

Geology[BA, Geology](#)[BS, Geology](#)**Marine Science**[BA, \(Marine Biology Concentration\)](#)[BS, \(Marine Biology Concentration\)](#)[BA, \(Oceanography Concentration\)](#)[BS, \(Oceanography Concentration\)](#)**Mathematics**[BA, Mathematics](#)[BS, Mathematics](#)**Physics**[BA, Physics](#)[BS, Physics](#)**Physics**[BA, Sustainability](#)[BS, Sustainability](#)[Geographic Information Systems Certificate](#)[Energy Certificate](#)[Forensic Science Certificate](#)

All Bachelor of Arts programs require a minimum of 128 credits and a 2.00 cumulative average.

BA SUSTAINABILITY				NAMS
Academic Year		Fall 2012-Spring 2013		64 Total Credits
Please note that a minimum grade of C is required for all courses in this area.			SUST XXXX Sustainable Technologies w/lab	(4)
Choose ONE Biology course with Lab			ENVL 2200/05 Environmental Principles w/Lab	(5)
BIOL 1200/05 Cells & Molecules			SUST 4600 Senior Seminar	(4)
BIOL 1400/05 Biodiver.& Evolution	(5)		Senior Project SUST 4800/4900	(4)
CHEM 2120/25 CHEM II Organic w/LAB	(5)		SUST 3100 Enviromental Risk Comm & Mgmt	(4)
Choose ONE Statistics Course			SUST 3320 Business & Sustainability	(4)
ENVL 2400 Intro. to Stats & Computers			SUST 3330 Green Finance & Accounting	(4)
POLS 2150 Intro. to Political Methodology	(4)		Choose at least 5 credits from the following	
PHYS 2220/25 PHYSICS I w/Lab	(6)		ECON 3636 Political Economy	
Choose ONE			ECON 3655 International Trade	
SUST 2100 Environmental Sustainability			ENVL 3444 Energy Management	
ENVL 1100 Intro. To Environmental Studies	(4)		MGMT 3110 Intro. To MGMT	
SUST 3300 Environmental Policy & Law	(4)		mgmt 3123 Management Skills Development	
ECON XXXX Ecological Economics	(4)		MGMT 3124 Organizational Behavior	
			PHIL 3130 Environmental Philosophy	
			SUST 3400 Global Sustainability	
GENERAL STUDIES REQUIREMENTS:				64 Total Credits
No more than 16 credits in any "G" category may be applied towards the BA degree.				32 Credits
GEN General Interdisciplinary			GNM General Natural Science & Math	
GIS-General Integration & Synthesis (Jr. yr.)			GNM	
GAH General Arts & Humanities			GSS General Social Science	
GAH			GSS	
AT SOME DISTANCE Electives - Courses unrelated to your major				32 Credits
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.				
(A) Arts			(V) Values/Ethics	
(H) Historical Consciousness			(I) International/Multicultural	
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)				
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.				
W1	W1/W2	W1/W2	W1/W2 at 3000 Level	
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)				
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.				
Q1		Q2	Q1 or Q2	

Prerequisites must be met, check course description on the web.

"The student is responsible for insuring that all graduation requirements are met" (Bulletin). Consult with your preceptor and/or the Center for Academic Advising on a regular basis.

All Bachelor of Science programs require a minimum of 128 credits and a 2.00 cumulative average.

BS COMPUTATIONAL SCIENCE / BIOLOGY				NAMS
Academic Year		Fall 2012-Spring 2013		80 Total Credits
Each course must be passed with a "C" or better: "P" (Pass) is not allowed.				
CPLS 2110 Intro. to Computational Science	(4)	BIOL 1200/05 Cells & Molecules		(5)
CPLS 2120 Intro. To Computational Modeling	(4)	BIOL 1400/05 Biodiver.&Evolution OR 1100/05		(5)
CPLS 3420 Bioinformatics	(4)	CHEM 2110/15 GEN CHEM I w/LAB		(5)
CSIS 2101 Programming & Problem Solving I	(4)	CHEM 2120/25 CHEM II Organic w/LAB		(5)
CSIS 2102 Programming & Problem Solving II	(4)	BIOL 2110/15 Genetics w/Lab		
MATH 2215 Calculus I	(5)	Prerequisites = BIOL 1200, BIOL 1400, CHEM I & II and Math 1100 All must have a grade of C or better		(4)
MATH 2216 Calculus II	(5)	BIOL 3000 level or greater		(4)
MATH 2217 Calculus III	(5)	BIOL 3000 level or greater		(4)
MATH 3323 Linear Algebra	(4)	CPLS 4800/4900 Research Project		
MATH 4461 Numerical Analysis	(4)	OR Internship (total 5-8 credits in TWO semesters) (Credit and topic for each must be approved by CPLS Advisor)		
		Other		
		CPLS/Cognates if needed to = program total of 80 credits		
GENERAL STUDIES REQUIREMENTS:				48 Total Credits
No more than 12 credits in any "G" category may be applied towards the BS degree.				32 Credits
GEN General Interdisciplinary		GNM General Natural Science & Math		
GIS-General Integration & Synthesis (Jr. yr.)		GNM		
GAH General Arts & Humanities		GSS General Social Science		
GAH		GSS		
AT SOME DISTANCE Electives - Courses unrelated to your major				16 Credits
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.				
(A) Arts		(V) Values/Ethics		
(H) Historical Consciousness		(I) International/Multicultural		
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)				
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.				
W1	W1/W2	W1/W2	W1/W2 at 3000 Level	
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)				
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.				
Q1		Q2	Q1 or Q2	

Prerequisites must be met, check course description on the web.

"The student is responsible for insuring that all graduation requirements are met" (Bulletin). Consult with your preceptor and/or the Center for Academic Advising on a regular basis.

All Bachelor of Science programs require a minimum of 128 credits and a 2.00 cumulative average.

BS COMPUTATIONAL SCIENCE / MATH				NAMS
Academic Year		Fall 2012-Spring 2013		80 Total Credits
Each course must be passed with a "C" or better: "P" (Pass) is not allowed.				
CPLS 2110 Intro. to Computational Science	(4)	Select ONE from the following		
CPLS 2120 Intro. To Computational Modeling	(4)	CPLS/PHYS 3410 Computational Nonlinear Systems		
CSIS 2101 Programming & Problem Solving I	(4)	BIOL 4110/4115 Bioinformatics w/LAB		
CSIS 2102 Programming & Problem Solving II	(4)	CPLS 3420/25 Bioinformatics		(4)
MATH 2215 Calculus I	(5)	Science/MATH 3000 level or greater		(4)
MATH 2216 Calculus II	(5)	Science 3000 level or greater		(4)
MATH 2217 Calculus III	(5)	CPLS 4800/4900 Research Project		
MATH 3323 Linear Algebra	(4)	OR Internship (total 5-8 credits in TWO semesters) (Credit and topic for each must be approved by CPLS Advisor)		
MATH 3328 Differential Equations	(4)			
MATH 4461 Numerical Analysis	(4)			
MATH 4000 level or greater	(4)			
MATH 4000 level or greater	(4)			
PHYS 2220/25 Physics I w/Lab	(6)			
PHYS 2230/35 PHYS II w/Lab	(6)	Other CPLS/Cognates if needed to = program total of 80 credits		
GENERAL STUDIES REQUIREMENTS:				48 Total Credits
No more than 12 credits in any "G" category may be applied towards the BS degree.				32 Credits
GEN General Interdisciplinary		GNM General Natural Science & Math		
GIS-General Integration & Synthesis (Jr. yr.)		GNM		
GAH General Arts & Humanities		GSS General Social Science		
GAH		GSS		
AT SOME DISTANCE Electives - Courses unrelated to your major				16 Credits
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.				
(A) Arts		(V) Values/Ethics		
(H) Historical Consciousness		(I) International/Multicultural		
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)				
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.				
W1	W1/W2	W1/W2	W1/W2 at 3000 Level	
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)				
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.				
Q1		Q2	Q1 or Q2	

Prerequisites must be met, check course description on the web.

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All Bachelor of Science programs require a minimum of 128 credits and a 2.00 cumulative average.

BS COMPUTATIONAL SCIENCE / PHYSICS				NAMS
Academic Year		Fall 2012-Spring 2013		80 Total Credits
Each course must be passed with a "C" or better: "P" (Pass) is not allowed.				
CPLS 2110 Intro. to Computational Science	(4)	PHYS 2220/25 Physics I w/Lab		(6)
CPLS 2120 Intro. To Computational Modeling	(4)	PHYS 2230/35 PHYS II w/Lab		(6)
CPLS 3410 Computational Nonlinear Systems	(4)	PHYS 3010 PHYS III		(4)
CSIS 2101 Programming & Problem Solving I	(4)	Select ONE from the following		
CSIS 2102 Programming & Problem Solving II	(4)	MATH 3328 Differential Equations		
MATH 2215 Calculus I	(5)	PHYS 3350 Mathematical Physics		(4)
MATH 2216 Calculus II	(5)	PHYS 3000 level or greater		(4)
MATH 2217 Calculus III	(5)	PHYS 3000 level or greater		(4)
MATH 3323 Linear Algebra	(4)	CPLS 4800/4900 Research Project		
MATH 4461 Numerical Analysis	(4)	OR Internship (total 5-8 credits int TWO semesters) (Credit and topic for each must be approved by CPLS Advisor)		
	(43)	Science/MATH Elective 2000 level or greater of at least 3 credits		
		Other CPLS/Cognates if needed to = program total of 80 credits		
GENERAL STUDIES REQUIREMENTS:				48 Total Credits
No more than 12 credits in any "G" category may be applied towards the BS degree.				32 Credits
GEN General Interdisciplinary		GNM General Natural Science & Math		
GIS-General Integration & Synthesis (Jr. yr.)		GNM		
GAH General Arts & Humanities		GSS General Social Science		
GAH		GSS		
AT SOME DISTANCE Electives - Courses unrelated to your major				16 Credits
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.				
(A) Arts		(V) Values/Ethics		
(H) Historical Consciousness		(I) International/Multicultural		
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)				
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.				
W1	W1/W2	W1/W2	W1/W2 at 3000 Level	
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)				
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.				
Q1		Q2	Q1 or Q2	

Prerequisites must be met, check course description on the web.

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All Bachelor of Arts programs require a minimum of 128 credits and a 2.00 cumulative average.

BA BIOLOGY		General Concentration		NAMS
Academic Year		Fall 2012-Spring 2013		64 Total Credits
Credit for BIOL 1200/05, 1400/05 & Genetics may only be earned with a " C " or better		Minimum GPA OF 2.0 REQUIRED in Program/Cognate Courses		
MATH 1100 or MATH 2215	(4-5)	BIOL 3XXX.4XXX	(4)	
BIOL 1200/05 Cells & Molecules	(5)	BIOL 3XXX.4XXX	(4)	
CHEM 2110/15 GEN CHEM I w/LAB	(5)	BIOL 3XXX.4XXX	(4)	
BIOL 1400/05 Biodiver.&Evolution OR 1100/05	(5)			
CHEM 2120/25 CHEM II Organic w/LAB	(5)	BIOL/Cognate	(4)	
BIOL 2110/15 Genetics w/Lab		BIOL/Cognate	(4)	
Prerequisites = BIOL 1200, BIOL 1400, CHEM I & II and Math 1100 All must have a grade of C or better	(4)	BIOL/Cognate	(4)	
PLANTS Course: Choose one from the following: BIOL 2020, 2120, 2126, 3180, 3185, 3365,3370, 3414, 3417, 3419, 3465, 4316, ENVL 3414, 3416, 3419, 4316, MARS 3335, 3336.	(4)	BIOL/Cognate	(4)	
BIOL 3600 Prep. For Research junior yr.	(1)	BIOL/Cognate if needed to = program total 80 credits		
BIOL 4600 Seminar	0 credits	BIOL 4800/4900 Senior Project W/ poster session optional , but encouraged + required to be considered for program distinction (2-4 credits)		
GENERAL STUDIES REQUIREMENTS:		64 Total Credits		
No more than 16 credits in any "G" category may be applied towards the BA degree.		32 Credits		
GEN General Interdisciplinary		GNM General Natural Science & Math		
GIS-General Integration & Synthesis (Jr. yr.)		GNM		
GAH General Arts & Humanities		GSS General Social Science		
GAH		GSS		
AT SOME DISTANCE Electives - Courses unrelated to your major		32 Credits		
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.				
(A) Arts		(V) Values/Ethics		
(H) Historical Consciousness		(I) International/Multicultural		
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)				
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.				
W1	W1/W2	W1/W2	W1/W2 at 3000 Level	
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)				
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.				
Q1		Q2	Q1 or Q2	

Prerequisites must be met, check course description on the web.

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All Bachelor degrees require a minimum of 128 credits and a 2.00 cumulative average.

BS BIOLOGY		General Concentration		NAMS
Academic Year		Fall 2012-Spring 2013		80 Total Credits
Credit for BIOL 1200/05, 1400/05, 3600, & Genetics may only be earned with a "C" or better		A minimum GPA of 2.0 required in Program/Cognate Courses		
MATH 1100 or MATH 2215 (4-5)		Choose three of the following		
BIOL 1200/05 Cells & Molecules	(5)	CHEM 2130 CHEM III (4)		
CHEM 2110/15 GEN CHEM I w/LAB	(5)	CHEM 2140/45 CHEM IV (4)		
BIOL 1400/05 Biodiver.&Evolution OR 1100/05	(5)	PHYS 2110/15 or PHYS 2220/25 (5)		
CHEM 2120/25 CHEM II Organic w/LAB	(5)	PHYS 2120/25 or PHYS 2230/35 (5)		
BIOL 2110/15 Genetics w/Lab Prerequisites = BIOL 1200, BIOL 1400, CHEM I & II and Math 1100 All must have a grade of C or better	(4)	BIOL/CHEM 3250 Biochemistry (4)		
BIOL 3600 Prep for Reseach (Jr. year)	(1)	BIOL 3000-4999 Level	(4)	
BIOL 4600 Seminar	0	BIOL3000-4999 Level	(4)	
PLANTS Course: Choose one from the following: BIOL 2020, 2120, 2126, 3180, 3185, 3365,3370, 3414, 3417, 3419, 3465, 4316, ENVL 3414, 3416, 3419, 4316, MARS 3335, 3336.	(4)	BIOL3000-4999 Level	(4)	
BIOL 4800/4900 BIOL Senior Project with poster session optional, but strongly encouraged. Required to be considered for program distinction		BIOL/Cognate	(4)	
GENERAL STUDIES REQUIREMENTS:		48 Total Credits		
No more than 12 credits in any "G" category may be applied towards the BS degree.		32 Credits		
GEN General Interdisciplinary		GNM General Natural Science & Math		
GIS-General Integration & Synthesis (Jr. yr.)		GNM		
GAH General Arts & Humanities		GSS General Social Science		
GAH		GSS		
AT SOME DISTANCE Electives - Courses unrelated to your major		16 Credits		
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.				
(A) Arts		(V) Values/Ethics		
(H) Historical Consciousness		(I) International/Multicultural		
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)				
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.				
W1	W1/W2	W1/W2	W1/W2 at 3000 Level	
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)				
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.				
Q1		Q2	Q1 or Q2	

Prerequisites must be met, check course description on the web.

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All Bachelor of Science programs require a minimum of 128 credits and a 2.00 cumulative average.

BS BIOLOGY		BIOTECHNOLOGY CONCENTRATION NAMS	
Academic Year		Fall 2012-Spring 2013	80 Total Credits
Credit for BIOL 1200/05, 1400/05, 3600, & Genetics may only be earned with a "C" or better		A minimum GPA of 2.0 required in Program/Cognate Courses	
MATH 1100 or MATH 2215	(4-5)	Choose three of the following	
BIOL 1200/05 Cells & Molecules	(5)	CHEM 2130 CHEM III	(4)
CHEM 2110/15 GEN CHEM I w/LAB	(5)	CHEM 2140/45 CHEM IV	(4)
BIOL 1400/05 Biodiver.&Evolution OR 1100/05	(5)	PHYS 2110/15 or PHYS 2220/25	(5)
CHEM 2120/25 CHEM II Organic w/LAB	(5)	PHYS 2120/25 or PHYS 2230/35	(5)
BIOL 2110/15 Genetics w/Lab Prerequisites = BIOL 1200, BIOL 1400, CHEM I & II and Math 1100 All must have a grade of C or better	(4)	BIOL/CHEM 3250 Biochemistry	(4)
BIOL 3600 Prep for Reseach (Jr. year)	(1)	BIOL 3180 Plant Physiology or other Plant course (consult CAPP for choices)	(4)
BIOL 4600 Seminar	0	BIOL 3000-4999 Level (see CAPP for selections)	
Choose one from the following BIOL 4211 Molecular Evolution BIOL 4210 Molecular Genetics BIOL/CHEM 3350 Biochemical Lab Methods BIOL 4215 Biotechnology	(4)	BIOL3000-4999 Level	(4)
BIOL 4800/4900 BIOL Senior Project with poster session optional, but strongly encouraged. Required to be considered for program distinction		BIOL3000-4999 Level	(4)
		BIOL/Cognate	(4)
		BIOL/Cognate	(4)
		BIOL/Cognate	(4)
		BIOL/Cognate if needed to = program total 80 credits	
GENERAL STUDIES REQUIREMENTS:		48 Total Credits	
No more than 12 credits in any "G" category may be applied towards the BS degree.		32 Credits	
GEN General Interdisciplinary		GNM General Natural Science & Math	
GIS-General Integration & Synthesis (Jr. yr.)		GNM	
GAH General Arts & Humanities		GSS General Social Science	
GAH		GSS	
AT SOME DISTANCE Electives - Courses unrelated to your major		16 Credits	
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.			
(A) Arts		(V) Values/Ethics	
(H) Historical Consciousness		(I) International/Multicultural	
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)			
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.			
W1	W1/W2	W1/W2	W1/W2 at 3000 Level
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)			
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.			
Q1		Q2	Q1 or Q2

Prerequisites must be met, check course description on the web.

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All Bachelor degrees require a minimum of 128 credits and a 2.00 cumulative average.

BA BIOLOGY		Health Professions Concentration		NAMS
Academic Year		Fall 2012-Spring 2013		64 Total Credits
Credit for BIOL 1200/05, 1400/05 & Genetics may only be earned with a "C" or better		Minimum GPA OF 2.0 REQUIRED in Program/Cognate Courses		
MATH 1100 or MATH 2215	(4-5)	BIOL/CHEM 3250 Biochemistry		(4)
BIOL 1200/05 Cells & Molecules	(5)	BIOL 3170 Microbiology		(4)
CHEM 2110/15 GEN CHEM I w/LAB	(5)	BIOL 3XXX.4XXX		(4)
BIOL 1400/05 Biodiver.&Evolution OR 1100/05	(5)	Choose 22 credits from the following courses to complete the Health Professions concentration.		
CHEM 2120/25 CHEM II Organic w/LAB	(5)	BIOL 4800/4900,		
BIOL 2110/15 Genetics w/Lab		CHEM III 2130/2135,		
Prerequisites = BIOL 1200, BIOL 1400, CHEM I & II and Math 1100 All must have a grade of C or better	(4)	CHEM IV 2140/2145,		
PLANTS Course: Choose one from the following: BIOL 2020, 2120, 2126, 3180, 3185, 3365,3370, 3414, 3417, 3419, 3465, 4316, ENVL 3414, 3416, 3419, 4316, MARS 3335, 3336.	(4)	CSIS 1206 Statistics, or PHYS sequence		
BIOL 3600 Prep. For Research junior yr.	(1)	BIOL/Cognate if needed to = program total 64 credits		
BIOL 4600 Seminar	0 credits	BIOL 4800/4900 Senior Project W/ poster session optional , but encouraged + required to be considered for program distinction (2-4 credits)		
GENERAL STUDIES REQUIREMENTS:		48 Total Credits		
No more than 12 credits in any "G" category may be applied towards the BS degree.		32 Credits		
GEN General Interdisciplinary		GNM General Natural Science & Math		
GIS-General Integration & Synthesis (Jr. yr.)		GNM		
GAH General Arts & Humanities		GSS General Social Science		
GAH		GSS		
AT SOME DISTANCE Electives - Courses unrelated to your major		32 Credits		
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.				
(A) Arts		(V) Values/Ethics		
(H) Historical Consciousness		(I) International/Multicultural		
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)				
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.				
W1	W1/W2	W1/W2	W1/W2 at 3000 Level	
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)				
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.				
Q1		Q2		Q1 or Q2

Prerequisites must be met, check course description on the web.

"The student is responsible for insuring that all graduation requirements are met" (Bulletin). Consult with your preceptor and/or the Center for Academic Advising on a regular basis.

All Bachelor Programs require a minimum of 128 credits and a 2.00 cumulative average.

BS BIOLOGY		Health Professions Concentration		NAMS
Academic Year		Fall 2012-Spring 2013		80 Total Credits
Credit for BIOL 1200/05, 1400/05, 3600, & Genetics may only be earned with a "C" or better		A minimum GPA of 2.0 required in Program/Cognate Courses		
MATH 1100 or MATH 2215	(4-5)	BIOL 3170 Microbiology or other 3000 Level	(4)	
BIOL 1200/05 Cells & Molecules	(5)	BIOL/CHEM 3250 Biochemistry	(4)	
CHEM 2110/15 GEN CHEM I w/LAB	(5)	CHEM 2130CHEM III	(4)	
BIOL 1400/05 Biodiver.&Evolution OR 1100/05	(5)	CHEM 2140/45 CHEM IV	(4)	
CHEM 2120/25 CHEM II Organic w/LAB	(5)	PHYS 2110/15 or PHYS 2220/25	(5-6)	(5)
BIOL 2110/15 Genetics w/Lab Prerequisites = BIOL 1200, BIOL 1400, CHEM I & II and Math 1100 All must have a grade of C or better	(4)	PHYS 2120/25 or PHYS 2230/35	(5-6)	(5)
BIOL 3600 Prep for Reseach (Jr. year)	(1)	BIOL 3000-4999 Level		(4)
BIOL 4600 Seminar	0	BIOL/Cognate		(4)
PLANTS Course: Choose one from: BIOL 2020, 2120, 2126, 3180, 3185, 3365,3370, 3414, 3417, 3419, 3465, 4316, ENVL 3414, 3416, 3419, 4316, MARS 3335, 3336.	(4)	BIOL/Cognate		(4)
BIOL 4800/4900 BIOL Senior Project with poster session optional, but strongly encouraged. Required to be considered for program distinction		BIOL/Cognate if needed to = 80 credit program total. Choose from: Biochem/Molecular Biology, Chemistry, Computational Science, Environmental, Geology,Marine Sciences, Math or Physics		
GENERAL STUDIES REQUIREMENTS:		48 Total Credits		
No more than 12 credits in any "G" category may be applied towards the BS degree.		32 Credits		
GEN General Interdisciplinary		GNM General Natural Science & Math		
GIS-General Integration & Synthesis (Jr. yr.)		GNM		
GAH General Arts & Humanities		GSS General Social Science		
GAH		GSS		
AT SOME DISTANCE Electives - Courses unrelated to your major		16 Credits		
GENERAL STUDIES OUTCOME REQUIREMENT:These courses are listed as attributes and should be completed within the 128 credits needed to graduate.				
(A) Arts		(V) Values/Ethics		
(H) Historical Consciousness		(I) International/Multicultural		
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)				
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.				
W1	W1/W2	W1/W2	W1/W2 at 3000 Level	
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)				
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.				
Q1		Q2		Q1 or Q2

Prerequisites must be met, check course description on the web.

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All Bachelor degrees require a minimum of 128 credits and a 2.00 cumulative average.

BS BIOLOGY		Medical Technology Concentration NAMS	
Academic Year		Fall 2012-Spring 2013	80 Total Credits
MATH 1100 or MATH 2215 by the end of Soph. yr. (4-5)		CHEM 2110/15 GEN CHEM I (5)	
		CHEM 2120/25 CHEM II Organic w/LAB	
Credit for BIOL 1200/05, 1400/05, 3600, & Genetics may only be earned with a "C" or better. A minimum GPA of 2.0 required for all Program/Cognate Courses. A GPA of 2.5 or greater required for UD.		Choose TWO Selections	
		CHEM 2130 CHEM III (4)	
		CHEM 2140/45 CHEM IV (4)	
BIOL 1200/05 Cells & Molecules (5)		BIOL/CHEM 3250 Biochemistry (4)	
BIOL 1400/05 Biodiver.& Evolution (5)		BIOL Elective if needed	
BIOL 2110/15 Genetics w/Lab Prerequisites = BIOL 1200, BIOL 1400, CHEM I & II and Math 1100 (4)		Students must earn 12 credits of BIOL at 3000 level or greater from course selections	
BIOL 3600 Prep for Reseach (Soph. year) (1)		Accepting transfer of 31 credits of science from courses listed from UD to complete RSC degree.	
BIOL 4600 Seminar (0) credits		MEDT 380 Clinical Immunology & Med. Virology (4)	(4)
BIOL 2150/51 Princip. Of Physiology (4)		MEDT 390 Intro /Genetics & Molec Diagnostics (3)	(3)
BIOL 3170 Microbiology (4)		MEDT 404/414 Hematology I (3)	(3)
PLANTS Course: Choose <u>ONE</u> from:BIOL 2020, 2120, 2126, 3180, 3185, 3365,3370, 3414, 3417, 3419, 3465, 4316, ENVL 3414, 3416, 3419, 4316, MARS 3335, 3336. (4)		MEDT 406/416 Medical Microbiology (5)	(5)
		MEDT 405/415 Hematology II (4)	(4)
		MEDT 420/421 Immunohematology II (2)	(2)
		MEDT 430/431 Diag Bacteriology & Medical Mycology (4)	(4)
		MEDT 403/413 Clinical Physiological Chem II (6)	(6)
GENERAL STUDIES REQUIREMENTS:		48 Total Credits	
No more than 12 credits in any "G" category may be applied towards the BS degree.		32 Credits	
GEN General Interdisciplinary		GNM General Natural Science & Math	
GIS-General Integration & Synthesis (Jr. yr.)		GNM	
GAH General Arts & Humanities		GSS General Social Science	
GAH		GSS	
AT SOME DISTANCE Electives - Courses unrelated to your major		16 Credits	
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be			
(A) Arts		(V) Values/Ethics	
(H) Historical Consciousness		(I) International/Multicultural	
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)			
W1	W1/W2	W1/W2	W1/W2 at 3000 Level
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)			
Q1	Q2	Q1 or Q2	

Prerequisites must be met, check course description on the web.

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All Bachelor degree programs require a minimum of 128 credits and a 2.00 cumulative average.

BS BIOLOGY		Pre-Physical Therapy Concentration NAMS	
Academic Year		Fall 2012-Spring 2013	80 Total Credits
MATH 1100 or MATH 2215	(4-5)	Minimum GPA OF 2.0 REQUIRED in Program/Cognate Courses BIOL 2150/51 Physiology (Vertebrate) w/Lab (4) BIOL 2180/85 Human Anatomy w/Lab (4) PLANTS Course: Choose one from the following: BIOL 2020, 2120, 2126, 3180, 3185, 3365,3370, 3414, 3417, 3419, 3465, 4316, ENVL 3414, 3416, 3419, 4316, MARS 3335, 3336. (4) BIOL Cognate; CHEM III, CHEM IV OR BIOL/CHEM 3250 Biochemistry (4) BIOL 3XXX.4XXX (if needed) (4) BIOL 3XXX.4XXX (if needed) (4) BIOL 3XXX.4XXX (if needed) (4) BIOL/Cognate if needed to reach 80 credit program total	
BIOL 1200/05 Cells & Molecules	(5)		
CHEM 2110/15 GEN CHEM I w/LAB	(5)		
BIOL 1400/05 Biodiver.&Evolution OR 1100/05	(5)		
CHEM 2120/25 CHEM II Organic w/LAB	(5)		
BIOL 2110/15 Genetics w/Lab Prerequisites = BIOL 1200, BIOL 1400, CHEM I & II and Math 1100 All must have a grade of C or better	(4)		
PHYS 2110/15 OR PHYS 2220/25 PHYSICS I	(5-6)		
PHYS 2120/25 OR PHYS 2230/35 PHYSICS II	(5-6)		
PSYC 1100 Intro to Psychology	(4)		
Statistics Course	(4)		
BIOL 3600 Prep for Reseach (Jr. year)	(1)		
BIOL 4600 Seminar	0		
GENERAL STUDIES REQUIREMENTS:			48 Total Credits
No more than 12 credits in any "G" category may be applied towards the BSdegree.		32 Credits	
GEN General Interdisciplinary		GNM General Natural Science & Math	
GIS-General Integration & Synthesis (Jr. yr.)		GNM	
GAH General Arts & Humanities		GSS General Social Science	
GAH		GSS	
AT SOME DISTANCE Electives - Courses unrelated to your major		16 Credits	
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.			
(A) Arts		(V) Values/Ethics	
(H) Historical Consciousness		(I) International/Multicultural	
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)			
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.			
W1	W1/W2	W1/W2	W1/W2 at 3000 Level
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)			
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.			
Q1		Q2	Q1 or Q2

Prerequisites must be met, check course description on the web.

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All Bachelor degrees require a minimum of 128 credits and a 2.00 cumulative average.

BS BIOLOGY		Doctor of Physical Therapy Concentration NAMS	
Academic Year		Fall 2012-Spring 2013	must be accepted as a freshman
		80 Total Credits	
MATH 1100 or MATH 2215	(4-5)	Minimum GPA OF 2.0 REQUIRED in Program/Cognate Courses BIOL Cognate; CHEM III, CHEM IV OR BIOL/CHEM 3250 Biochemistry (4) PLANTS Course: Choose one from the following: BIOL 2020, 2120, 2126, 3180, 3185, 3365, 3370, 3414, 3417, 3419, 3465, 4316, ENVL 3414, 3416, 3419, 4316, MARS 3335, 3336. (4) BIOL 3XXX.4XXX (if needed) (4) BIOL 3XXX.4XXX (if needed) (4) BIOL 3XXX.4XXX (if needed) (4) BIOL 4150 Advance Human Physiology PHTH 5010 Human Gross Anatomy (4) PHTH 5020 Pathology (4) BIOL 4230 Neuroscience w/Lab (4)	
BIOL 1200/05 Cells & Molecules	(5)		
CHEM 2110/15 GEN CHEM I w/LAB	(5)		
BIOL 1400/05 Biodiver.&Evolution OR 1100/05	(5)		
CHEM 2120/25 CHEM II Organic w/LAB	(5)		
BIOL 2110/15 Genetics w/Lab Prerequisites = BIOL 1200, BIOL 1400, CHEM I & II and Math 1100 All must have a grade of C or better	(4)		
PSYC 1100 Intro to Psychology	(4)		
Statistics Course	(4)		
BIOL 2150/51 Physiology (Vertebrate) w/Lab	(4)		
BIOL 2180/85 Human Anatomy w/Lab	(4)		
PHYS 2110/15 OR PHYS 2220/25 PHYSICS I	(5-6)		
PHYS 2120/25 OR PHYS 2230/35 PHYSICS II	(5-6)		
BIOL 3600 Prep. For Research junior yr.	(1)		
BIOL 4600 Seminar	(0)		
GENERAL STUDIES REQUIREMENTS:		48 Total Credits	
No more than 12 credits in any "G" category may be applied towards the BS degree.		32 Credits	
GEN General Interdisciplinary		GNM General Natural Science & Math	
GIS-General Integration & Synthesis (Jr. yr.)		GNM	
GAH General Arts & Humanities		GSS General Social Science	
GAH		GSS	
AT SOME DISTANCE Electives - Courses unrelated to your major		16 Credits	
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.			
(A) Arts		(V) Values/Ethics	
(H) Historical Consciousness		(I) International/Multicultural	
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)			
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.			
W1	W1/W2	W1/W2	W1/W2 at 3000 Level
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)			
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.			
Q1		Q2	Q1 or Q2

Prerequisites must be met, check course description on the web.

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All Bachelor of Science programs require a minimum of 128 credits and a 2.00 cumulative average.

BS BIOCHEMISTRY / MOLECULAR BIOLOGY				NAMS
Academic Year		Fall 2012-Spring 2013		80 Total Credits
Grade of "C" or better must be earned in all core courses listed below.		A minimum GPA of 2.0 required in Program/Cognate Courses		
MATH 2215 Calculus	(5)			
BIOL 1200/05 Cells & Molecules	(5)	PHYS 2110/15 or PHYS 2220/25	(5-6)	
CHEM 2110/15 GEN CHEM I w/LAB	(5)	PHYS 2120/25 or PHYS 2230/35	(5-6)	
BIOL 1400/05 Biodiver.&Evolution OR 1100/05	(5)	BIOL/CHEM 3350 Biochemical Lab Methods	(4)	
CHEM 2120/25 CHEM II Organic w/LAB	(5)	Choose two of the following		
BIOL 2110/15 Genetics w/Lab Prerequisites = BIOL 1200, BIOL 1400, CHEM I & II and Math 1100 All must have a grade of C or better	(4)	CHEM 3035 Survey of Instrumentation		(4)
CHEM 2130 CHEM III Organic Reactions	(4)	CHEM 3310 Lab Methods I		
CHEM 2140/45 CHEM IV Organic Reactions	(4)	CHEM 3320 Lab Methods II		
BIOL/CHEM 3250 Biochemistry	(4)	CHEM 3410 Physical Chemistry I		
BIOL 4210 Molecular Genetics OR	(4)	CHEM 3520 Advanced Organic Chemistry		(4)
BIOL 4211 Molecular Evolution OR		CHEM 3550 Advanced Biochemistry		
BIOL 4215 Biotechnology		Choose two of the following		
BIOL/CHEM 3350 Lab Methods	(4)	BIOL 3100, 3132, 3160, 3170, 3180, 3190,		(4)
BIOL/CHEM 4800/4900 Senior Project/Internship	(4)	4155, 4200, 4210, 4215, 4220, 3141, 3110, 3435, 3433, 4100, 4211, 4230, and 4160		(4)
		Other BIOL/Cognates if needed to =program total 80 credits		
GENERAL STUDIES REQUIREMENTS:				48 Total Credits
No more than 12 credits in any "G" category may be applied towards the BS degree.				32 Credits
GEN General Interdisciplinary		GNM General Natural Science & Math		
GIS-General Integration & Synthesis (Jr. yr.)		GNM		
GAH General Arts & Humanities		GSS General Social Science		
GAH		GSS		
AT SOME DISTANCE Electives - Courses unrelated to your major				16 Credits
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.				
(A) Arts		(V) Values/Ethics		
(H) Historical Consciousness		(I) International/Multicultural		
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)				
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.				
W1	W1/W2	W1/W2	W1/W2 at 3000 Level	
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)				
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.				
Q1		Q2		Q1 or Q2

Prerequisites must be met, check course description on the web.

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All Bachelor of Arts programs require a minimum of 128 credits and a 2.00 cumulative average.

BA CHEMISTRY				NAMS
Academic Year		Fall 2012-Spring 2013		64 Total Credits
Chemistry Core (42 credits)		MATH 2215 Calculus I	(5)	
CHEM 2110/15 GEN CHEM I w.LAB		PHYS 2220/25 Physics I w/Lab	(6)	
CHEM 2120/25 CHEM II Organic w/LAB		MATH 2217 Calculus II	(5)	
CHEM 2130 CHEM III		PHYS 2230/35 PHYS II w/Lab	(6)	
CHEM 2140/45 CHEM IV		CHEM/Cognates if needed to = 64 credit program total		
CHEM 3025 Organic CHEM Lab				
CHEM 3110 Inorganic CHEM				
CHEM 3310 Lab Methods I				
CHEM 3320 Lab Methods II				
CHEM 3410 Physical CHEM I				
CHEM 3420 Physical CHEM II				
CHEM 4800/4900 Thesis or Internship (1-3 credits)		0		
CHEM Seminar		0		
GENERAL STUDIES REQUIREMENTS:				64 Total Credits
No more than 12 credits in any "G" category may be applied towards the BS degree.				32 Credits
GEN General Interdisciplinary		GNM General Natural Science & Math		
GIS-General Integration & Synthesis (Jr. yr.)		GNM		
GAH General Arts & Humanities		GSS General Social Science		
GAH		GSS		
AT SOME DISTANCE Electives - Courses unrelated to your major				32 Credits
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.				
(A) Arts		(V) Values/Ethics		
(H) Historical Consciousness		(I) International/Multicultural		
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)				
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.				
W1	W1/W2	W1/W2	W1/W2 at 3000 Level	
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)				
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.				
Q1		Q2		Q1 or Q2

Prerequisites must be met, check course description on the web.

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All Bachelor degrees require a minimum of 128 credits and a 2.00 cumulative average.

BS CHEMISTRY				NAMS
Academic Year		Fall 2012-Spring 2013		80 Total Credits
Chemistry Core (42 credits) An overall GPA of 2.0 is required in all CHEM courses.			MATH 2215 Calculus I	(5)
	CHEM 2110/15 GEN CHEM I w.LAB	(5)	PHYS 2220/25 Physics I w/Lab	(6)
	CHEM 2120/25 CHEM II Organic w/LAB	(5)	MATH 2217 Calculus II	(5)
	CHEM 2130 CHEM III	(4)	PHYS 2230/35 PHYS II w/Lab	(6)
	CHEM 2140/45 CHEM IV	(4)	CHEM 4600 Seminar	
	CHEM 3025 Organic CHEM Lab	(1)	CHEM/Cognates	(4)
	CHEM 3110 Inorganic CHEM	(4)	CHEM/Cognates	(4)
	CHEM 3310 Lab Methods I	(4)	CHEM/Cognates	(4)
	CHEM 3320 Lab Methods II	(4)	CHEM/Cognates if needed to = 80 credit program total	
	CHEM 3410 Physical CHEM I	(4)		
	CHEM 3420 Physical CHEM II	(4)		
	CHEM 4800/4900 Thesis or Internship (1-3 credits)	0	To earn American Chemical Society (ACS) Certification, choose the following as CHEM/cognates BIOL 1200/05 Cells & Molecules w/Lab CHEM 3250 Biochemistry You must have at least 44 credits in CHEM courses	
	CHEM 4600 Seminar	0		
GENERAL STUDIES REQUIREMENTS:				48 Total Credits
No more than 12 credits in any "G" category may be applied towards the BS degree.				32 Credits
GEN General Interdisciplinary			GNM General Natural Science & Math	
GIS-General Integration & Synthesis (Jr. yr.)			GNM	
GAH General Arts & Humanities			GSS General Social Science	
GAH			GSS	
AT SOME DISTANCE Electives - Courses unrelated to your major				16 Credits
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.				
(A) Arts			(V) Values/Ethics	
(H) Historical Consciousness			(I) International/Multicultural	
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)				
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.				
W1	W1/W2	W1/W2	W1/W2 at 3000 Level	
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)				
Q1		Q2		Q1 or Q2

Prerequisites must be met, check course description on the web.

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All Bachelor degrees require a minimum of 128 credits and a 2.00 cumulative average.

BS CHEMISTRY		Environmental Concentration NAMS	
Academic Year		Fall 2012-Spring 2013	
		80 Total Credits	
Chemistry Core (42 credits) An overall GPA of 2.0 is required in all CHEM courses.		PHYS 2110/15 PHYS for Life Sci.I w/Lab	(5)
		PHYS 2120/25 PHYS for Life Sci.II w/Lab	(5)
CHEM 2110/15 GEN CHEM I w.LAB	(5)	ENVL 3434 Watershed OR	
MATH 2215 Calculus I	(5)	ENVL 3435 Groundwater Hydrology	(4)
CHEM 2120/25 CHEM II Organic w/LAB	(5)	CHEM 4800/4900 Senior Project or Internship (2-4 credits)	
CHEM 2130 CHEM III	(4)	CHEM 4600 Seminar	
CHEM 2140/45 CHEM IV	(4)	Choose one course from two of the following groups	
CHEM 3025 Organic CHEM Lab	(1)	GROUP I - Organic CHEM, Advan. Org. CHEM, Physical CHEM, Water CHEM	
CHEM 3110 Inorganic CHEM	(4)	GROUP II - Biochem., BIOL-Cells & Molecules, Microbiol., ENVL 2200- Ecolog. Princ. w/Lab	(4)
CHEM 3310 Lab Methods I	(4)	GROUP III - ENVL Physical Geography w/Lab, Basic Geographic Sys., Freshwater Wetlands, Wetlands Mgmt. , GEOL-Physical Geology w/Lab	(4)
CHEM 3320 Lab Methods II	(4)	CHEM/Cognates	(4)
CHEM 3530 Environmental CHEM	(4)	CHEM/Cognates if needed to = 80 credit program total	
CHEM 3580 Atmospheric CHEM	(4)		
ENVL 3241 Environ. Pollution & Regulations	(4)		
ENVL 3432 Soil Science	(4)		
ENVL 4300/05 ENVL Issues w/Lab	(4)		
ENVL 4446 Environ. Remediation & Biotech.	(4)		
GENERAL STUDIES REQUIREMENTS:		48 Total Credits	
No more than 12 credits in any "G" category may be applied towards the BS degree.		32 Credits	
GEN General Interdisciplinary		GNM General Natural Science & Math	
GIS-General Integration & Synthesis (Jr. yr.)		GNM	
GAH General Arts & Humanities		GSS General Social Science	
GAH		GSS	
AT SOME DISTANCE Electives - Courses unrelated to your major		16 Credits	
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.			
(A) Arts		(V) Values/Ethics	
(H) Historical Consciousness		(I) International/Multicultural	
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)			
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.			
W1	W1/W2	W1/W2	W1/W2 at 3000 Level
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)			
Q1		Q2	Q1 or Q2

Prerequisites must be met, check course description on the web.

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All Bachelor of Arts programs require a minimum of 128 credits and a 2.00 cumulative average.

BA ENVIRONMENTAL STUDIES				NAMS
Academic Year		Fall 2012-Spring 2013		64 Total Credits
All Environmental Studies majors must earn a 2.0 GPA in all science and math courses taken at Stockton.		ENVL 3000-4999		(4)
Choose <u>ONE</u> MATH MATH 1100 Precalculus MATH 2215 Calculus I Math 2210 Calculus for Life Science (4-5)		ENVL 3000-4999		(4)
Biology w/Lab 1200/05 OR 1400/05	(5)	ENVL 3000-4999		(4)
CHEM 2110/15 CHEM I w/Lab	(5)	Choose one from the following GEOL 2101/2105 Physical Geology w/Lab ECON 1200 Macroeconomics ECON 1400 Microeconomics PHYS 2110/15 Physics I w/Lab PHYS 2112/15 Physics for ENVL w/Lab (4-5)		
ENVL majors must earn a min. grade of C in ENVL 1100, 2100/05, 2200/05, 2400, 4300/05, 2600,4600, + 4800/4900		Choose ENVL or other NAMS courses to equal 64 total prog. credits. Courses in POLS, ECON, PUBH, & others may count as cognates with PRIOR approval of preceptor.		
ENVL 1100 Intro to Environmental Science	(4)	ENVL/Cognate		
ENVL 2100/05 Physical Geography	(4)	ENVL/Cognate		
ENVL 2200/05 Ecological Principals	(5)	ENVL/Cognate		
ENVL 4300/05 Environmental Issues (seniors only)	(4)			
ENVL 4800/4900 Sr. Project/Internship	(4)			
ENVL 2400 Statistics and Computers	(4)			
ENVL 4600 ENVL Studies Seminar up to 3x's for (1) credit				
GENERAL STUDIES REQUIREMENTS:				64 Total Credits
No more than 16 credits in any "G" category may be applied towards the BA degree.				32 Credits
GEN General Interdisciplinary		GNM General Natural Science & Math		
GIS-General Integration & Synthesis (Jr. yr.)		GNM		
GAH General Arts & Humanities		GSS General Social Science		
GAH		GSS		
AT SOME DISTANCE Electives - Courses unrelated to your major				32 Credits
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.				
(A) Arts		(V) Values/Ethics		
(H) Historical Consciousness		(I) International/Multicultural		
GENERAL STUDIES WRITING REQUIREMENT:(4 courses)				
Two W1 courses may be in transfer. W2 courses must be taken at Stockton				
W1	W1/W2	W1/W2	W1/W2at 3000 Level	
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)				
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.				
Q1		Q2		Q1 or Q2

Prerequisites must be met, check course description on the web.

"The student is responsible for insuring that all graduation requirements are met" (Bulletin). Consult with your preceptor and/or the Center for Academic Advising on a regular basis.

All Bachelor of Science programs require a minimum of 128 credits and a 2.00 cumulative average.

BS ENVIRONMENTAL SCIENCE				NAMS
Academic Year		Fall 2012-Spring 2013		80 Total Credits
All Environmental Studies majors must earn a 2.0 GPA in all science and math courses taken at Stockton.		ENVL 3000-4999		(4)
MATH 2210 or 2215 Calculus I (Required for grad. school)		ENVL 3000-4999		(4)
OR CPLS 2110, Intro. to Computational Science	(5)	ENVL 3000-4999		(4)
Biology w/Lab 1200/05 OR 1400/05	(5)	ENVL 3000-4999		(4)
CHEM 2110/15 CHEM I w/Lab	(5)	GEOL 2101/2105 Physical Geology w/Lab OR PHYS 2110/15 Physics I w/Lab		(5)
CHEM 2120/25 CHEM II (Organic) w/Lab OR CHEM 2140/45 CHEM IV w/Lab	(5)	MATH 1100 Precalculus (if needed) OR Cognate		(4)
ENVL majors must earn a min. grade of C in ENVL 1100, 2100/05, 2200/05, 2400, 4300/05, 2600,4600, + 4800/4900		Choose ENVL or other NAMS courses to equal 80 total prog. credits. Courses in POLS, ECON, PUBH, & others may count as cognates with PRIOR approval of preceptor.		
ENVL 1100 Intro to Environmental Science	(4)	ENVL/Cognate		
ENVL 2100/05 Physical Geography	(4)	ENVL/Cognate		
ENVL 2200/05 Ecological Principals	(5)	ENVL/Cognate		
ENVL 4300/05 Environmental Issues (seniors only)	(4)	Students have the option of choosing a concentration in Biological Resources, Environmental Chemistry, or Pollution and Quality, Geographic Information Systems, or Soils and Water Resources or combining several of those areas (see preceptor).		
ENVL 4800/4900 Sr. Project/Internship	(4)			
ENVL 2400 Statistics and Computers	(4)			
ENVL 4600 ENVL Studies Seminar up to 3x's for (1) credit				
GENERAL STUDIES REQUIREMENTS:				48 Total Credits
No more than 12 credits in any "G" category may be applied towards the BS degree.				32 Credits
GEN General Interdisciplinary		GNM General Natural Science & Math		
GIS-General Integration & Synthesis (Jr. yr.)		GNM		
GAH General Arts & Humanities		GSS General Social Science		
GAH		GSS		
AT SOME DISTANCE Electives - Courses unrelated to your major				16 Credits
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.				
(A) Arts		(V) Values/Ethics		
(H) Historical Consciousness		(I) International/Multicultural		
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)				
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.				
W1	W1/W2	W1/W2	W1/W2 at 3000 Level	
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)				
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.				
Q1		Q2		Q1 or Q2

Prerequisites must be met, check course description on the web.

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All Bachelor of Science programs require a minimum of 128 credits and a 2.00 cumulative average.

BS ENVIRONMENTAL SCIENCE Sustainability & Environmental Policy Concentration				NAMS
Academic Year		Fall 2012-Spring 2013		80 Total Credits
All Environmental Studies majors must earn a 2.0 GPA in all science and math courses taken at Stockton.		ENVL 3000-4999		(4)
		ENVL 3000-4999		(4)
MATH 2215 Calculus I (Required for grad. school)		ENVL 3000-4999		(4)
OR CPLS 2110, Intro. to Computational Science	(5)	ENVL 3000-4999		(4)
Biology w/Lab 1200/05 OR 1400/05	(5)	MATH 1100 Precalculus (if needed) OR Cognate		(4)
CHEM 2110/15 CHEM I w/Lab	(5)	GEOL 2101/2105 Physical Geology w/Lab OR PHYS 2110/15 Physics I w/Lab		(5)
CHEM 2120/25 CHEM II (Organic) w/Lab OR CHEM 2140/45 CHEM IV w/Lab	(5)	Choose ENVL or other NAMS courses to equal 80 total prog. credits. Courses in POLS, ECON, PUBH, & others may count as cognates with PRIOR approval of preceptor.		
ENVL majors must earn a min. grade of C in ENVL 1100, 2100/05, 2200/05, 2400, 4300/05, 2600,4600, + 4800/4900		ENVL/Cognate		
ENVL 1100 Intro to Environmental Science	(4)	ENVL/Cognate		
ENVL 2100/05 Physical Geography	(4)	ENVL/Cognate		
ENVL 2200/05 Ecological Principals	(5)			
ENVL 2400 Statistics and Computers	(4)	Students have the option of choosing a concentration in Biological Resources, Environmental Chemistry, or Pollution and Quality, Geographic Information Systems, or Soils and Water Resources or combining several of those areas (see preceptor).		
ENVL 4300/05 Environmental Issues (seniors only)	(4)			
ENVL 4800/4900 Sr. Project/Internship	(4)			
ENVL 2600 ENVL Studies Seminar up to 3x's for	(1) credit			
GENERAL STUDIES REQUIREMENTS:			48 Total Credits	
No more than 12 credits in any "G" category may be applied towards the BS degree.			32 Credits	
GEN General Interdisciplinary		GNM General Natural Science & Math		
GIS-General Integration & Synthesis (Jr. yr.)		GNM		
GAH General Arts & Humanities		GSS General Social Science		
GAH		GSS		
AT SOME DISTANCE Electives - Courses unrelated to your major			16 Credits	
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.				
(A) Arts		(V) Values/Ethics		
(H) Historical Consciousness		(I) International/Multicultural		
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)				
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.				
W1	W1/W2	W1/W2	W1/W2 at 3000 Level	
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)				
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.				
Q1		Q2		Q1 or Q2

Prerequisites must be met, check course description on the web.

"The student is responsible for insuring that all graduation requirements are met" (Bulletin). Consult with your preceptor and/or the Center for Academic Advising on a regular basis.

All Bachelor of Arts programs require a minimum of 128 credits and a 2.00 cumulative average.

BA GEOLOGY				NAMS
Academic Year		Fall 2012-Spring 2013		64 Total Credits
A 2.0 grade average is required in all GEOL courses.		MATH-Precalculus, Calculus II, OR any Statistics		(4)
GEOL 2101/05 Physical Geography/Lab	(5)	GEOL/Cognate 3000-4000 Level		(4)
GEOL 2102/06 Historical Geology/Lab	(5)	GEOL/Cognate 3000-4000 Level		(4)
GEOL 3211 Mineralogy	(4)	GEOL/Cognate 3000-4000 Level		(4)
GEOL 3212 Petrology	(4)	GEOL/Cognate 3000-4000 Level		(4)
GEOL 3221 Field Geology	(4)	GEOL/Cognate		(4)
GEOL 3222 Structural Geology	(4)	GEOL/Cognate		(4)
CHEM 2110/15 GEN CHEM I w.LAB		GEOL/Cognate if needed to = 64 credit program total		
CHEM 2120/25 CHEM II OR CHEM 2140/45 CHEM IV (4-5 credits)				
MATH 2215 Calculus I				(5)
GENERAL STUDIES REQUIREMENTS:				64 Total Credits
No more than 16 credits in any "G" category may be applied towards the BA degree.				32 Credits
GEN General Interdisciplinary		GNM General Natural Science & Math		
GIS-General Integration & Synthesis (Jr. yr.)		GNM		
GAH General Arts & Humanities		GSS General Social Science		
GAH		GSS		
AT SOME DISTANCE Electives - Courses unrelated to your major				32 Credits
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.				
(A) Arts		(V) Values/Ethics		
(H) Historical Consciousness		(I) International/Multicultural		
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)				
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.				
W1	W1/W2	W1/W2	W1/W2 at 3000 Level	
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)				
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.				
Q1		Q2	Q1 or Q2	

Prerequisites must be met, check course description on the web.

"The student is responsible for insuring that all graduation requirements are met" (Bulletin). Consult with your preceptor and/or the Center for Academic Advising on a regular basis.

All Bachelor of Science programs require a minimum of 128 credits and a 2.00 cumulative average.

BS GEOLOGY				NAMS
Academic Year		Fall 2012-Spring 2013		80 Total Credits
A 2.0 grade average is required in all GEOL courses.				GEOL/Cognate Upper level (3000-4000) courses in GEOL or other cognates to reach the Program total of 80 credits
GEOL 2101/05 Physical Geography/Lab	(5)			
GEOL 2102/06 Historical Geology/Lab	(5)		GEOL/Cognate (4)	
GEOL 3211 Mineralogy	(4)		GEOL/Cognate (4)	
GEOL 3212 Petrology	(4)		GEOL/Cognate (4)	
GEOL 3221 Field Geology	(4)		GEOL/Cognate (4)	
GEOL 3222 Structural Geology	(4)		GEOL/Cognate (4)	
			GEOL/Cognate (4)	
CHEM 2110/15 GEN CHEM I w.LAB	(5)		GEOL/Cognate if needed	
CHEM 2120/25 CHEM II OR CHEM 2140/45 CHEM IV (4-5)			GEOL/Cognate if needed	
MATH 2215 Calculus I	(5)			
MATH 2216 Calculus II	(5)			
PHYS 2110/15 or PHYS 2220/25 (5-6)	(5)			
PHYS 2120/25 or PHYS 2230/35 (5-6)	(5)			
GENERAL STUDIES REQUIREMENTS:				48 Total Credits
No more than 12 credits in any "G" category may be applied towards the BS degree.				32 Credits
GEN General Interdisciplinary			GNM General Natural Science & Math	
GIS-General Integration & Synthesis (Jr. yr.)			GNM	
GAH General Arts & Humanities			GSS General Social Science	
GAH			GSS	
AT SOME DISTANCE Electives - Courses unrelated to your major				16 Credits
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.				
(A) Arts			(V) Values/Ethics	
(H) Historical Consciousness			(I) International/Multicultural	
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)				
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.				
W1	W1/W2	W1/W2	W1/W2 at 3000 Level	
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)				
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.				
Q1		Q2		Q1 or Q2

Prerequisites must be met, check course description on the web.

"The student is responsible for insuring that all graduation requirements are met" (Bulletin). Consult with your preceptor and/or the Center for Academic Advising on a regular basis.

All Bachelor of Arts programs require a minimum of 128 credits and a 2.00 cumulative average.

BA MATH		NAMS	
Academic Year		Fall 2012-Spring 2013	
		64 Total Credits	
The following 41 core Math credits must be earned with a "C" or higher		Group I Choose one courses from: MATH 4431 Advanced Calculus MATH 4432 Complex Analysis MATH 4441 Algebraic Structures MATH 4445 Modern Geometry (4)	
MATH 2215 Calculus I	(5)	Group II Choose one courses from: MATH 4451 Probability & Stats I MATH 4452 Probability & Stats II MATH 4461 Numerical Analysis MATH 4471 Computer Algorithms MATH 4472 Theory of Computation MATH 4481 Topics in Math (4)	
MATH 2216 Calculus II	(5)		
MATH 2217 Calculus III	(5)		
CSIS 2101 Programming & Problem Solving I	(4)		
MATH 3323 Linear Algebra	(4)		
MATH 3325 Foundations of MATH	(4)		
PHYS 2220/25 Physics I w/Lab	(6)		
PHYS 2230/35 PHYS II w/Lab	(6)		
MATH 4600 Math Seminar	(1)		
MATH 4600 Math Seminar	(1)		
FOR COGNATE CHOICES	(41)	Select two courses from Group I or II (4)	(4)
Consult with your Math Preceptor for choices from PHYS, CSIS, ECON, MATH, MARS or GNM, 2161, 2113, 3149 or 2245		MATH/Cognate	
		MATH/Cognate	
		MATH/Cognate if needed to = 64 tot. cr.	
		MATH/Cognate if needed to = 64 tot. cr.	
GENERAL STUDIES REQUIREMENTS:		64 Total Credits	
No more than 16 credits in any "G" category may be applied towards the BA degree.		32 Credits	
GEN General Interdisciplinary		GNM General Natural Science & Math	
GIS-General Integration & Synthesis (Jr. yr.)		GNM	
GAH General Arts & Humanities		GSS General Social Science	
GAH		GSS	
AT SOME DISTANCE Electives - Courses unrelated to your major		32 Credits	
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.			
(A) Arts		(V) Values/Ethics	
(H) Historical Consciousness		(I) International/Multicultural	
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)			
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.			
W1	W1/W2	W1/W2	W1/W2 at 3000 Level
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)			
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.			
Q1		Q2	Q1 or Q2

Prerequisites must be met, check course description on the web.

"The student is responsible for insuring that all graduation requirements are met" (Bulletin). Consult with your preceptor and/or the Center for Academic Advising on a regular basis.

All Bachelor degree programs require a minimum of 128 credits and a 2.00 cumulative average.

BS MATH		NAMS	
Academic Year		Fall 2012-Spring 2013	
		80 Total Credits	
The following 45 core Math credits must be earned with a "C" or higher		Group I Choose one courses from: MATH 4431 Advanced Calculus MATH 4432 Complex Analysis MATH 4441 Algebraic Structures MATH 4445 Modern Geometry (4)	
MATH 2215 Calculus I	(5)	Group II Choose one courses from: MATH 4451 Probability & Stats I MATH 4452 Probability & Stats II MATH 4461 Numerical Analysis MATH 4471 Computer Algorithms MATH 4472 Theory of Computation MATH 4481 Topics in Math (4)	
MATH 2216 Calculus II	(5)		
MATH 2217 Calculus III	(5)		
CSIS 2101 Programming & Problem Solving I	(4)		
MATH 3328 Differential Equations	(4)		
MATH 3323 Linear Algebra	(4)		
MATH 3325 Foundations of MATH	(4)		
PHYS 2220/25 Physics I w/Lab	(6)		
PHYS 2230/35 PHYS II w/Lab	(6)		
MATH 4600 Math Seminar	(1)		
MATH 4600 Math Seminar	(1)	MATH/Cognate to = 80 total program credits (4)	
	(45)	Math/Cognate (4)	
FOR COGNATE CHOICES		Math/Cognate (4)	
Consult with your Math Preceptor for choices from PHYS, CSIS, ECON, MATH, MARS or GNM, 2161, 2113, 3149 or 2245		Math/Cognate (4)	
		Math/Cognate (4)	
		MATH/cognate to = 80 if needed	
GENERAL STUDIES REQUIREMENTS:		48 Total Credits	
No more than 12 credits in any "G" category may be applied towards the BS degree.		32 Credits	
GEN General Interdisciplinary		GNM General Natural Science & Math	
GIS-General Integration & Synthesis (Jr. yr.)		GNM	
GAH General Arts & Humanities		GSS General Social Science	
GAH		GSS	
AT SOME DISTANCE Electives - Courses unrelated to your major		16 Credits	
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.			
(A) Arts		(V) Values/Ethics	
(H) Historical Consciousness		(I) International/Multicultural	
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)			
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.			
W1	W1/W2	W1/W2	W1/W2 at 3000 Level
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)			
Q1	Q2	Q1 or Q2	

Prerequisites must be met, check course description on the web.

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All Bachelor degree programs require a minimum of 128 credits and a 2.00 cumulative average.

BS COMPUTATIONAL SCIENCE				NAMS
Academic Year		Fall 2012-Spring 2013		80 Total Credits
The following 45 core Math credits must be earned with a "C" or higher			See page 2 for areas of concentration	
MATH 2215 Calculus I	(5)	BIOLOGY		
MATH 2216 Calculus II	(5)	CHEMISTRY		
MATH 2217 Calculus III	(5)	ENVIRONMENTAL SCIENCE		
CPLS 2110 Intro to Computational Science	(4)	MARINE SCIENCE		
CPLS 2120 Computational Modeling	(4)	MATH		
MATH 3323 Linear Algebra	(4)	PHYSICS		
CPLS 4461 Numerical Analysis	(4)			
CSIS 2101 Programming & Problem Solving I	(4)			
CSIS 2102 Programming & Problem Solving II	(4)			
PHYS/CPLS 3410 Computational Nonlinear Systems				
OR	(4)			
BIOL 4110/15 Bioinformatics w/Lab		Other Science		
Research Project or Internship		Electives if needed to =80 total credits		
Research 1 CPLS 4800/4900 FALL (1-2)				
Research 2 CPLS 4800/4900 SPRING (1-3)				
GENERAL STUDIES REQUIREMENTS:				48 Total Credits
No more than 12 credits in any "G" category may be applied towards the BS degree.				32 Credits
GEN General Interdisciplinary		GNM General Natural Science & Math		
GIS-General Integration & Synthesis (Jr. yr.)		GNM		
GAH General Arts & Humanities		GSS General Social Science		
GAH		GSS		
AT SOME DISTANCE Electives - Courses unrelated to your major				16 Credits
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.				
(A) Arts		(V) Values/Ethics		
(H) Historical Consciousness		(I) International/Multicultural		
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)				
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.				
W1	W1/W2	W1/W2	W1/W2 at 3000 Level	
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)				
Q1	Q2		Q1 or Q2	

Prerequisites must be met, check course description on the web.

"The student is responsible for insuring that all graduation requirements are met" (Bulletin). Consult with your preceptor and/or the Center for Academic Advising on a regular basis.

All Bachelor degree programs require a minimum of 128 credits and a 2.00 cumulative average.

Replace CPLS 4461 with MATH 3323 Linear Algebra

Remove Discrete Math 2225

Remove CHOICE Prob. & Stat OR Data Structures

New Requirement

Choose ONE

PHYS/CPLS 3410 Computational Nonlinear Systems

BIOL 4110/415 Bioinformatics w/ Lab

"The student is responsible for insuring that all graduation requirements are met" (Bulletin). Consult with your preceptor and/or the Center for Academic Advising on a regular basis.

All Bachelor degree programs require a minimum of 128 credits and a 2.00 cumulative average.

BS	COMPUTATIONAL SCIENCE	NAMS
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First Year	Fall 2012-Spring 2013	First Year Spring	80 Total Credits
CPLS 2110		CSIS 2101	
MATH 2215 Calculus I		MATH 2216 Calculus II	
Science Introductory Science w/Lab	-5	Science Introductory Science w/Lab	
G Freshman Seminar	-5	G (W1)	
Second Year	-5	Second Year Spring	
CPLS 2120 Computational Modeling	-4	MATH 2217 Calculus III	
CSIS 2102 Programming & Problem Solving II	-4	PHYSICS	
Math/Science (PHYS I 2220/25) required for all except BIOL/CHEM concentration)	-4		
	-4		
CSIS 2101 Programming & Problem Solving I	-4		
CSIS 2102 Programming & Problem Solving II	-4		
PHYS/CPLS 3410 Computational Nonlinear Systems			
OR	-4		
BIOL 4110/15 Bioinformatics w/Lab		Other Science	
Research Project or Internship		Electives if needed to =80 total credits	
Research 1 CPLS 4800/4900 FALL (1-2)			
Research 2 CPLS 4800/4900 SPRING (1-3)			

GENERAL STUDIES REQUIREMENTS:	48 Total Credits
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No more than 12 credits in any "G" category may be applied towards the BS degree.	32 Credits
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GEN General Interdisciplinary				GNM General Natural Science & Math	
GIS-General Integration & Synthesis (Jr. yr.)				GNM	
GAH General Arts & Humanities				GSS General Social Science	
GAH				GSS	

AT SOME DISTANCE Electives - Courses unrelated to your major	16 Credits
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GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.

(A) Arts				(V) Values/Ethics	
(H) Historical Consciousness				(I) International/Multicultural	

GENERAL STUDIES WRITING REQUIREMENT: (4 courses)
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.

W1	W1/W2	W1/W2	W1/W2 at 3000 Level
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GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)

Q1	Q2	Q1 or Q2
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Prerequisites must be met, check course description on the web.

"The student is responsible for insuring that all graduation requirements are met" (Bulletin). Consult with your preceptor and/or the Center for Academic Advising on a regular basis.

All Bachelor degree programs require a minimum of 128 credits and a 2.00 cumulative average.

Replace CPLS 4461 with MATH 3323 Linear Algebra

Remove Discrete Math 2225

Remove CHOICE Prob. & Stat OR Data Structures

New Requirement

Choose ONE

PHYS/CPLS 3410 Computational Nonlinear Systems

BIOL 4110/415 Bioinformatics w/ Lab

G or ASD

"The student is responsible for insuring that all graduation requirements are met" (Bulletin). Consult with your preceptor and/or the Center for Academic Advising on a regular basis.

All Bachelor of Arts programs require a minimum of 128 credits and a 2.00 cumulative average.

BA MARINE SCIENCE		Marine Biology Concentration NAMS	
Academic Year		Fall 2012-Spring 2013	64 Total Credits
All Marine Science students must attain a 2.00 average in all science and math courses.		Choose three courses from:	
MARS 2201 Intro to Marine BIOL	(4)	BIOL 2100 - Ecology	
MARS 2202 Intro to Oceanography	(4)	MARS 3335 - Marine Botany	(4)
MARS 3371/75 Oceanography II w/Lab	(4)	MARS 3300 - Invertebrate Zoology	
CHEM 2110/15 CHEM I w/Lab	(5)	MARS 3340 - introduction to Ichthyology	
CHEM 2120/25 CHEM II Organic w/Lab	(5)	or suitable vertebrate taxonomy courses such as:	
GEOL 2110/15 Marine Geology		BIOL 2130, BIOL 3125, BIOL 3130, BIOL 3340,	(4)
OR other suitable GEOL 2000-4000	(5)	BIOL 3746	
BIOL 1200/05 Cells & Molecules	(5)	ENVL 3425, 3450	
BIOL 1400/05 Biodiver.& Evolution OR 1100/05	(5)	MARS 2130, 3746.	(4)
PHYS 2110/15 or PHYS 2220/25	(5-6)	MARS 3306 Aquaculture OR	
Statistics 2000-4000 level	(4)	MARS 3307 Fisheries Science & Management	(4)
		MARS Cognates = (BCMB, BIOL, CHEM, ENVL, GEOL, MATH, or PHYS)	
		MARS/Cognate	
		MARS/Cognates	
		if needed to = 64 Program total credits	
GENERAL STUDIES REQUIREMENTS:		64 Total Credits	
No more than 16 credits in any "G" category may be applied towards the BA degree.		32 Credits	
GEN General Interdisciplinary		GNM General Natural Science & Math	
GIS-General Integration & Synthesis (Jr. yr.)		GNM	
GAH General Arts & Humanities		GSS General Social Science	
GAH		GSS	
AT SOME DISTANCE Electives - Courses unrelated to your major		32 Credits	
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.			
(A) Arts		(V) Values/Ethics	
(H) Historical Consciousness		(I) International/Multicultural	
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)			
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.			
W1	W1/W2	W1/W2	W1/W2 at 3000 Level
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)			
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.			
Q1		Q2	Q1 or Q2

Prerequisites must be met, check course description on the web.

"The student is responsible for insuring that all graduation requirements are met" (Bulletin). Consult with your preceptor and/or the Center for Academic Advising on a regular basis.

All Bachelor degree programs require a minimum of 128 credits and a 2.00 cumulative average.

BS MARINE SCIENCE		Marine Biology Concentration NAMS	
Academic Year		Fall 2012-Spring 2013	
		80 Total Credits	
All Marine Science students must attain a 2.00 average in all science and math courses.		Choose three courses from: BIOL 2100 - Ecology MARS 3335 - Marine Botany MARS 3300 - Invertebrate Zoology MARS 3340 - introduction to Ichthyology or suitable vertebrate taxonomy courses such as: BIOL 2130, BIOL 3125, BIOL 3130, BIOL 3340, BIOL 3746 ENVL 3425, 3450 MARS 2130, 3746.	
MARS 2201 Intro to Marine BIOL	(4)		(4)
MARS 2202 Intro to Oceanography	(4)		
MARS 3371/75 Oceanography II w/Lab	(4)		(4)
CHEM 2110/15 CHEM I	(5)		
CHEM 2120/25 CHEM II Organic w/LAB	(5)		(4)
GEOL 2110/15 Marine Geology			
OR other suitable GEOL 2000-4000	(5)	MARS 3306 Aquaculture OR	
BIOL 1200/05 Cells & Molecules	(5)	MARS 3307 Fisheries Science & Management	(4)
BIOL 1400/05 Biodiver.& Evolution OR 1100/05	(5)	MARS 3000-4999	(4)
PHYS 2110/15 or PHYS 2220/25	(5)	MARS/Cognate (BCMB, BIOL, CHEM, ENVL, GEOL, MATH, or PHYS)	(4)
PHYS 2120/25 or PHYS 2230/35	(5)	MARS/Cognate	
Statistics 2000-4000 level	(4)	if needed to = 80 Program total credits	
MATH 2210 Calc. for Life Science OR			
MATH 2215 Calculus I	(5)		
GENERAL STUDIES REQUIREMENTS:		48 Total Credits	
No more than 12 credits in any "G" category may be applied towards the BS degree.		32 Credits	
GEN General Interdisciplinary		GNM General Natural Science & Math	
GIS-General Integration & Synthesis (Jr. yr.)		GNM	
GAH General Arts & Humanities		GSS General Social Science	
GAH		GSS	
AT SOME DISTANCE Electives - Courses unrelated to your major		16 Credits	
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.			
(A) Arts		(V) Values/Ethics	
(H) Historical Consciousness		(I) International/Multicultural	
GENERAL STUDIES WRITING REQUIREMENT:(4 courses)			
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.			
W1	W1/W2	W1/W2	W1/W2at 3000 Level
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)			
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.			
Q1		Q2	Q1 or Q2

Prerequisites must be met, check course description on the web.

"The student is responsible for insuring that all graduation requirements are met" (Bulletin). Consult with your preceptor and/or the Center for Academic Advising on a regular basis.

All Bachelor of Arts programs require a minimum of 128 credits and a 2.00 cumulative average.

BA MARINE SCIENCE		Oceanography Concentration NAMS	
Academic Year		Fall 2012-Spring 2013	64 Total Credits
All Marine Science students must attain a 2.00 average in all science and math courses.		MATH 2216 Calculus II OR any 2000 level Statistics (4-5)	
MARS 2201 Intro to Marine BIOL	(4)	PHYS I PHYS 2220/25 w/Lab Calculus based	(6)
MARS 2202 Intro to Oceanography	(4)	PHYS II PHYS 2230/35w/Lab Calculus based	(6)
MARS 3371/75 Oceanography II w/Lab	(4)	MARS/Cognate cognates = (BCMB, BIOL, CHEM, ENVL, GEOL, MATH, or PHYS)	
CHEM 2110/15 CHEM I w/Lab	(5)	MARS/Cognate	(4)
CHEM 2120/25 CHEM II Organic w/Lab	(5)	MARS/Cognate	
GEOL 2110/15 Marine Geology OR other suitable GEOL 2000-4000	(5)	if needed to = 64 Program total credits	
CHEM IV 2140/45 w/Lab	(4)		
GEOL Elective (4-5)			
MARS 3372 Oceanography III	(4)		
MATH 2215 Calculus I	(5)		
GENERAL STUDIES REQUIREMENTS:		64 Total Credits	
No more than 16 credits in any "G" category may be applied towards the BA degree.		32 Credits	
GEN General Interdisciplinary		GNM General Natural Science & Math	
GIS-General Integration & Synthesis (Jr. yr.)		GNM	
GAH General Arts & Humanities		GSS General Social Science	
GAH		GSS	
AT SOME DISTANCE Electives - Courses unrelated to your major		32 Credits	
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.			
(A) Arts		(V) Values/Ethics	
(H) Historical Consciousness		(I) International/Multicultural	
GENERAL STUDIES WRITING REQUIREMENT:(4 courses)			
Two W1 courses may be in transfer. W2 courses must be taken at Stockton			
W1	W1/W2	W1/W2	W1/W2at 3000 Level
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)			
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.			
Q1		Q2	Q1 or Q2

Prerequisites must be met, check course description on the web.

"The student is responsible for insuring that all graduation requirements are met" (Bulletin). Consult with your preceptor and/or the Center for Academic Advising on a regular basis.

All Bachelor degree programs require a minimum of 128 credits and a 2.00 cumulative average.

BS MARINE SCIENCE		Oceanography Concentration NAMS	
Academic Year		Fall 2012-Spring 2013	
		80 Total Credits	
All Marine Science students must attain a 2.00 average in all science and math courses.		PHYS I PHYS 2220/25 w/Lab Calculus based	(6)
		PHYS II PHYS 2230/35w/Lab Calculus based	(6)
MARS 2201 Intro to Marine BIOL	(4)	MARS 3000-4999	(4)
MARS 2202 Intro to Oceanography	(4)	MARS/Cognate	(4)
MARS 3371/75 Oceanography II w/Lab	(4)	MARS/Cognate	(4)
CHEM 2110/15 CHEM I w/Lab	(5)		
CHEM 2120/25 CHEM II Organic w/Lab	(5)		
GEOL 2110/15 Marine Geology OR other suitable GEOL 2000-4000	(5)	MARS/Cognate cognates = (BCMB, BIOL, CHEM, ENVL, GEOL, MATH, or PHYS)	
CHEM IV 2140/45 w/Lab	(4)	MARS/Cognate	(4)
GEOL Elective (4-5)		MARS/Cognate	(4)
MARS 3372 Oceanography III	(4)	MARS/Cognate	
MATH 2215 Calculus I	(5)	if needed to = 80 Program total credits	
MATH 2216 Calculus II OR any 2000 level Statistics			
GENERAL STUDIES REQUIREMENTS:		48 Total Credits	
No more than 12 credits in any "G" category may be applied towards the BS degree.		32 Credits	
GEN General Interdisciplinary		GNM General Natural Science & Math	
GIS-General Integration & Synthesis (Jr. yr.)		GNM	
GAH Genral Arts & Humanities		GSS General Social Science	
GAH		GSS	
AT SOME DISTANCE Electives - Courses unrelated to your major		16	
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.			
(A) Arts		(V) Values/Ethics	
(H) Historical Consciousness		(I) International/Multicultural	
GENERAL STUDIES WRITING REQUIREMENT:(4 courses)			
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.			
W1	W1/W2	W1/W2	W1/W2at 3000 Level
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)			
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton			
Q1		Q2	Q1 or Q2

Prerequisites must be met, check course description on the web.

"The student is responsible for insuring that all graduation requirements are met" (Bulletin). Consult with your preceptor and/or the Center for Academic Advising on a regular basis.

All Bachelor degrees require a minimum of 128 credits and a 2.00 cumulative average.

BS APPLIED PHYSICS				NAMS
Academic Year		Fall 2012-Spring 2013		80 Total Credits
Physics Core (35 credits)		PHYS 2220/25 Physics I w/Lab	(6)	PHYS 3220 Computational Mechanics (4)
		PHYS 2230/35 PHYS II w/Lab	(6)	PHYS 3340 Optics (4)
		PHYS 3010 PHYS III	(4)	PHYS 3110 Electronics (4)
		MATH 2215 Calculus I	(5)	PHYS 3352 Nonlinear Systems OR
		MATH 2217 Calculus II	(5)	MATH 3323 Linear Algebra (4)
		MATH 2216 Calculus III	(5)	PHYS 3370 Electricity & Magnetism OR (4)
		MATH 3328 Differential Equations	(4)	PHYS 3380 Thermal Physics (4)
		PHYS 2600 Colloquim 4 semesters	0	PHYS 3390 Intro to Quantum Mechanics (4)
		PHYS 2600 Colloquim	0	PHYS 4620 Research Methods 4 semesters 0
		PHYS 2600 Colloquim	0	PHYS 4620 Research Methods 0
		PHYS 2600 Colloquim	0	PHYS 4620 Research Methods 0
		PHYS 2600 Colloquim	0	PHYS 4620 Research Methods 0
Track and/or Cognate Courses: (16 credits) With careful advising students can design their own track in computer science, biophysical science, engineering physics, computational physics, physics education, and pre-graduate school.				PHYS 4800/4900 Sr. Project/Internship
PHYS/Cognate if needed to = 80 Prog. Credits				PHYS/Cognate (4)
				PHYS/Cognate (4)
				PHYS/Cognate (4)
				PHYS/Cognate (4)
GENERAL STUDIES REQUIREMENTS:				48 Total Credits
No more than 12 credits in any "G" category may be applied towards the BS degree.				32 Credits
GEN General Interdisciplinary		GNM General Natural Science & Math		
GIS-General Integration & Synthesis (Jr. yr.)		GNM		
GAH General Arts & Humanities		GSS General Social Science		
GAH		GSS		
AT SOME DISTANCE Electives - Courses unrelated to your major				16 Credits
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.				
(A) Arts		(V) Values/Ethics		
(H) Historical Consciousness		(I) International/Multicultural		
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)				
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.				
W1	W1/W2	W1/W2	W1/W2 at 3000 Level	
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)				
Q1		Q2		Q1 or Q2

Prerequisites must be met, check course description on the web.

"The student is responsible for insuring that all graduation requirements are met" (Bulletin). Consult with your preceptor and/or the Center for Academic Advising on a regular basis.

All Bachelor degrees require a minimum of 128 credits and a 2.00 cumulative average.

BA APPLIED PHYSICS				NAMS
Academic Year		Fall 2012-Spring 2013		64 Total Credits
Physics Core (35 credits)		PHYS 3220 Computational Mechanics	(4)	
PHYS 2220/25 Physics I w/Lab	(6)	PHYS 3340 Optics OR		
PHYS 2230/35 PHYS II w/Lab	(6)	PHYS 3110 Electronics	(4)	
PHYS 3010 PHYS III	(4)	PHYS 3352 Nonlinear Systems OR		
MATH 2215 Calculus I	(5)	PHYS 3380 Thermal Physics	(4)	
MATH 2217 Calculus II	(5)	PHYS 3370 Electricity & Magnetism OR		
MATH 2216 Calculus III	(5)	PHYS 3390 Intro to Quantum Mechanics	(4)	
MATH 3328 Differential Equations	(4)	PHYS 4800/4900 Sr. Project/Internship		
PHYS 2600 Colloquim 4 semesters	0	PHYS/Cognate	(4)	
PHYS 2600 Colloquim	0	PHYS/Cognate	(4)	
PHYS 2600 Colloquim	0	PHYS/Cognate	(4)	
PHYS 2600 Colloquim	0	PHYS 4620 Research Methods 4 semesters	0	
PHYS/Cognate if needed to = 64 Prog. Credits		PHYS 4620 Research Methods	0	
PHYS/Cognate if needed to = 64 Prog. Credits		PHYS 4620 Research Methods	0	
GENERAL STUDIES REQUIREMENTS:			64 Total Credits	
No more than 16 credits in any "G" category may be applied towards the Ba degree.			32 Credits	
GEN General Interdisciplinary		GNM General Natural Science & Math		
GIS-General Integration & Synthesis (Jr. yr.)		GNM		
GAH General Arts & Humanities		GSS General Social Science		
GAH		GSS		
AT SOME DISTANCE Electives - Courses unrelated to your major			32 Credits	
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.				
(A) Arts		(V) Values/Ethics		
(H) Historical Consciousness		(I) International/Multicultural		
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)				
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.				
W1	W1/W2	W1/W2	W1/W2 at 3000 Level	
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)				
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.				
Q1		Q2		Q1 or Q2

Prerequisites must be met, check course description on the web.

"The student is responsible for insuring that all graduation requirements are met" (Bulletin). Consult with your preceptor and/or the Center for Academic Advising on a regular basis.

NATURAL SCIENCE & MATH MINORS

[NAMS](#)

Academic Year Fall 2012-Spring 2013

pg 1 of 2

Courses for a minor must be earned with a grade of "C" or better grades

BIOLOGY

Minimum 22 credits excluding CHEM

BIOL 1200/1205 /Cells & Molecules

CHEM 2110/15 GEN CHEM I w.Lab

BIOL 1400/1405 /Biodiversity & Evolution

CHEM 2120/25 CHEM II Organic w.Lab

BIOL 2110/15 Genetics w/Lab

BIOL 4600 BIOL Seminar

BIOL Elective 3000 Level

BIOL Elective 3000 Level

ENVIRONMENTAL STUDIES

Minimum Credits 24

All courses must be selected in consultation with an ENVL faculty member and must be approved in advance by the ENVL Program.

ENVL or Cognate _____ (4)

ENVL or Cognate _____ (4)

ENVL or Cognate _____ (4)

ENVL or Cognate _____ (4)

ENVL or Cognate 3/4 _____ (4)

ENVL or Cognate 3/4 _____ (4)

CHEMISTRY Minimum Credits 26 Electives:

Introductory Core: (18 credits)

CHEM 2110/2115 Chem I and Lab (5)

CHEM 2120/2125 Chem II and Lab (5)

CHEM 2130 Chem III and Lab (4)

CHEM 2140/2145 Chem IV and Lab (4)

Choose One of the following Laboratory

Intensive Courses: (4 credits)

CHEM 3035 Survey of Instrumentation (4)

CHEM 3110 Inorganic Chemistry (4)

CHEM 3310 Laboratory Methods I (4)

CHEM 3120 Lab Methods II (4)

CHEM 3420/3425 Physical Chem. II with Lab. (4)

CHEM 3350 Biochemical Lab Methods (4)

CHEM 3520/3025 Advanced Org. Chem/Lab (4)

Elective: One 4 credit CHEM course at the 3000 or 4000 level

Appropriate elective courses for the CHEM minor are:

Inorganic, Physical, Environmental or Biochemistry, Laboratory Methods II, and Topics in Chemistry or in Chemistry or Independent Study offerings.

Intermediate/advanced ELECTIVE (4 credits)

CHEM acronym independent studies and/or internships may be used to satisfy this requirement.

Transfer students must complete credits beyond the introductory core at Stockton.

NATURAL SCIENCE & MATH MINORS**NAMS****Academic Year****Fall 2009-Spring 2010**

Courses for a minor must be earned with a grade of "C" or better grades

[NAMS](#)**MARINE SCIENCE Minimum Credits 20**

Required Courses: (8 credits)

MARS 1100 Survey of Ocean Life or

MARS 2201 Intro to Marine Biology (4)

(Student cannot take both)

MARS 2202 Introduction to Oceanography (4)

Electives: At least 12 MARS credits, 8 of which must be at the 3000 or 4000 level. Students must complete all prerequisites for any MARS electives.

MARS _____ (4)

MARS 3/4 _____ (4)

MARS 3/4 _____ (4)

MATHEMATICS Credits 23

Required Courses:

MATH 2215 Calculus I (5)

MATH 2216 Calculus II (5)

MATH 2217 Calculus III (5)

MATH 3323 Linear Algebra (4)

MATH 3000 Level or greater

APPLIED PHYSICS Minimum Credits 22

Required Courses: (14-16 credits)

PHYS 2220 Physics I and (5)

PHYS 2225 Physics I Lab or (1)

PHYS 2110 Physics for Life Sciences I and (4)

PHYS 2115 Physics for Life Sciences I Lab (1)

PHYS 2230 Physics II and (5)

PHYS 2235 Physics II Lab or (1)

PHYS 2120 Physics for Life Sciences II and (4)

PHYS 2125 Physics for Life Sciences Lab II (1)

PHYS 3010 Physics III (4)

A choice of any two 3000 level

physics courses: (8 credits)

PHYS 3XXX (4)

PHYS 3XXX (4)

GEOLOGY Minimum Credits 22

Required Courses: (10 credits)

GEOL 2101/05 Physical Geology w/Lab

GEOL 2102/06 Historical Geology w/Lab

At least 8 credits from the following:

GEOL 3211 Mineralogy (4)

GEOL 3212 Petrology (4)

GEOL 3221 Field Geology (4)

GEOL 3222 Structural Geology (4)

GEOL 3231 Sedimentology & Stratigraphy (4)

GEOL 3241 Paleobiology (4)

GEOL 3328 Environmental Geology (4)

GEOL 4371 Geophysics (4)

BIOL/GEOL 3242 Vertebrate Paleontology (4)

ENVL/GEOL 3430 Geomorphology (4)

No more than 6 credits from the following:

GEOL 4391 Field Studies: Selected Area (4-6)

ENVL 3432 Soil Science (4)

NATURAL SCIENCE & MATH CERTIFICATE PROGRAMS

Academic Year

Fall 2012-Spring 2013

GEOGRAPHIC INFORMATION SYSTEMS

GIS CERTIFICATE PROGRAM (17-18)

Prerequisites for non-ENVL majors:

GNM 1242 Mapping the World's Natural Resources

ENVL 2400 Intro. to Statistics & Computers (4)

Common Core: (10)

ENVL 3302 Geog. Info. Systems (Fall) (3-4)

ENVL 3303 Advanced GIS (Spring) (4)

ENVL 4622 Global Positioning Systems for GIS (Fall) (2)

Select one or two from the following courses: (4)

ENVL 3304 Remote Sensing (Spring) (4)

ENVL 3307 Geodatabase (Spring) (4)

ENVL 4201 Spatial Statistics. (Spring) (2)

CSIS 3222 Database Systems (4)

GIS Sr. Project or Internship: (4)

ENVL 48/4900 GIS Project (4)

Contact Dr. Weihong Fan 609-652-4995

or fanw@stockton.edu

ENERGY 35-43

Common Core (21)

CHEM 2110/2115 Chem.1/Lab (5)

Energy-related Sr. Proj./Internship (4)

Choose two of the following courses: (8)

PHYS/ENVL 3443 Energy Planning (4)

PHYS/ENVL 3444 Energy Management

PHYS Energy Phys. (Ind. St.) (4)

PHYS Alt. Energy Sources (Ind. St.) (4)

Choose one of the following courses: (4)

ENVL 3454 Environmental Economics

ECON 1200 Macroeconomics (4)

ECON 1400 Microeconomics (4)

Choose one emphasis from the following

Environmental Science (14)

PHYS 2110/2115 Physics for L.S. I & L

PHYS 2120/2125 Physics for L.S. II & L

One energy-related elective (4)

Physical Science (22)

MATH 2215 Calculus I (5)

MATH 2216 Calculus II (5)

PHYS 2220/2225 Physics I/Lab (6)

PHYS 2230/2235 Physics II/Lab (6)

Dr. Lynn Stiles, Coordinator

[NAMS](#)

3)

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4)

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ab (5)

-ab (5)

FORENSIC SCIENCE Certificate This is a 20 credit certificate excluding the 28 prerequisite credits required**Prerequisites: (28 Credits)**

CRIM 1100	(4)
BIOL 1200/05 Cells & Molecules	(5)
BIOL 1400/05 Biodiversity & Evolution OR 1100/05	(5)
CHEM 2110/15 GEN CHEM I w.LAB	(5)
CHEM 2120/25 CHEM II Organic w/LAB	(5)
BIOL 2110/15 Genetics w/Lab (Prerequisites = BIOL 1200, BIOL 1400, □CHEM I & I	(4)

FORENSIC SCIENCE Certificate (20 credits)

Required Courses 12 credits

CRIM 2610 Intro. to Forensic Science	(4)
CRIM 3646 Forensic Behavior Analysis	(4)
CRIM 3770 Advanced Forensic Science	(4)

Select **one** course from the following:

BIOL/ANTH/CRIM 2400 Forensic Anthropology	(4)
BIOL 3423 Entomology	
BIOL 4210 Molecular Genetics	
BIOL 4215 Biotechnology	
CHEM 3320 Lab Methods II (pre-req CHEM 3310 Laboratory Methods I)	
CHEM/BIOL 3350 Biochemistry Lab Meth.	

Select **one** course from the following:

BIOL 4800 BIOL Research	(4)
BIOL 4900 Internship	
BCMB 4800 Senior Project	
CHEM 4900 Internship	
CRIM 4870 Special Forensic Science Research Project	

Dr. Rupendra Simlot, Coordinator G246

Fall 2012-Spring 2013

All Bachelor degrees require a minimum of 128 credits and a 2.00 cumulative average.

BS ENGINEERING APPLIED PHYSICS DUAL DEGREE PROGRAM				pg 1 of 2	NAMS		
Academic Year		Fall 2012-Spring 2013		80 Total Credits			
RSC: B.S. in Physics NJIT or Rutgers: B.S. in Engineering (The possible Engineering fields are listed on the back)		MATH 2215 Calculus I	(5)				
		MATH 2217 Calculus II	(5)				
		MATH 2216 Calculus III	(5)				
		PHYS 2220/25 Physics I w/Lab	(6)	MATH 3328 Differential Equations	(4)		
		PHYS 2230/35 PHYS II w/Lab	(6)	ENGN 4600 Engineering Seminar	(0)		
		PHYS 2300 Statics	(4)	Choose one of the following courses			
		PHYS 2600 Colloquim	0	MATH 2225 Discrete Math and			
		PHYS 3010 PHYS III	(5)	PHYS 3120 Electrical Circuits (EE & CoE)			
		PHYS 3220 Mechanics	(5)	PHYS 3200 Mech. of Materials (ME, CE, IE, ME, ESN)			
		PHYS 3000 level	(4)	Choose one of the following courses			
		CHEM 2110/5 Chemistry I/Lab	(5)	PHYS 3110 Electronics (EE, CoE)			
		CHEM 2140/5 Chemistry IV/Lab	(4)	PHYS 3340 Optics			
		Additional Engineering Courses (Transferred)	0				
GENERAL STUDIES REQUIREMENTS:				48 Total Credits			
No more than 12 credits in any "G" category may be applied towards the BS degree.				32 Credits			
GEN General Interdisciplinary		GNM General Natural Science & Math					
GIS-General Integration & Synthesis (Jr. yr.)		GNM or Transfer Engineering Course					
GAH General Arts & Humanities		GSS General Social Science					
GAH		GSS					
AT SOME DISTANCE Electives - Courses unrelated to your major				16 Credits			
GEN 2180 Engineering Graphics		MGMT 3110 Intro. to Management					
CSIS 2101 Programming & Prob. Solv. I		Economics Course (Transferred)					
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.							
(A) Arts		(V) Values/Ethics					
(H) Historical Consciousness		(I) International/Multicultural					
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)							
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.							
W1	W1/W2	W1/W2	W1/W2 at 3000 Level				
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)							
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.							
Q1	Q2	Q1 or Q2					

Prerequisites must be met, check course description on the web.

"The student is responsible for insuring that all graduation requirements are met" (Bulletin). Consult with your preceptor and/or the Center for Academic Advising on a regular basis.

All Bachelor degrees require a minimum of 128 credits and a 2.00 cumulative average.

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**Stockton course requirement for the
Engineering/Applied Physics Dual-degree Program
Academic Year Fall 2012– Spring 2013**



RSC RSC: B.S. in Physics
Rutgers Rutgers U. B.S. in Electrical, Mechanical, Civil, or Bioresources Engineering
or Engineering Science and Mechanics
NJIT B.S. in Electrical, Computer, Mechanical, Industrial, or Manufacturing Engineering
or Engineering Science and Mechanics

I. Core and Program Course

Physics: Physics I, Physics II, Physics III, Statics, Mechanics, Electronics
and upper level physics course.

The student also needs to pick one of the following groups
according to his or her choice of engineering field:

- Circuits and Discrete Math (Rutgers) for EE & CoE
- Mechanics of Materials for ME, CE, IE, MnE & ESM
- Mechanics of materials and Org. and Evol. for Bioresources

Mathematics: Calc. I, Calc. II, Calc. III, and Differential Equations

Chemistry: Chem. I and Chem. IV

Engineering: ENGN 4600

(A course that includes a project need to be taken at Rutgers or NJIT)

II. Liberal Studies

Rutgers

- GEN 2180 Engineering Graphics
- GEN 1120 Rhet. and Comp. or GEN 1013)
- C or C++ Course
- Two GAH courses and two GSS courses
(One of the four must be an upper level)
- One GIS course
- MGMT 3110 at RSC and an Economics
course at Rutgers or ECON 1200, and
ECON 1400 at RSC

NJIT

- 2180 Engineering Graphics
- GEN 1120 Rhetoric and Comp.
- C or C++ Course
- Two GAH courses and one GSS course
- Two GIS courses
- MGMT 3110 at RSC and an Economics
at NJIT

- 8 credit hours in technical courses at the engineering school
will be transferred back to satisfy Stockton GNM requirements.
- G-courses are selected after consulting with the coordinator of the
engineering dual-degree program.
- One GAH or GSS course must include freshman seminar.

**"The student is responsible for insuring that all graduation requirements are met" (Bulletin). Consult with your
preceptor and/or the Center for Academic Advising on a regular basis.**

All Bachelor degrees require a minimum of 128 credits and a 2.00 cumulative average.

BS ENGINEERING / CHEMISTRY DUAL DEGREE PROGRAM				NAMS
Academic Year		Fall 2012-Spring 2013	Pg 1 of 1	80 Total Credits
PROGRAM REQUIREMENTS: (80 credits)				
These are the program and cognate requirements for the Engineering/Chemistry Dual Degree Program in cooperation with NJIT and Rutgers. Upon completion of this program, students receive the Bachelor of Science in Chemistry from Stockton and a Bachelor of Science in Chemical Engineering from NJIT.				
CHEM 2110/15 GEN CHEM I w.LAB	(5)	MATH 2215 Calculus I	(5)	
CHEM 2120/25 CHEM II Organic w/LAB	(5)	MATH 2217 Calculus II	(5)	
CHEM 2130/35 CHEM III Organic Reactions	(4)	MATH 2216 Calculus III	(5)	
CHEM 2140/45 CHEM IV Organic Reactions	(4)	MATH 3328 Differential Equations	(4)	
CHEM 3310 Lab Methods I	(4)	PHYS 2220/25 Physics I w/Lab	(6)	
CHEM 3320 Lab Methods II	(4)	PHYS 2230/35 PHYS II w/Lab	(6)	
CHEM 3410 Physical Chemistry I	(4)	PHYS 3010 PHYS III	(4)	
ENGN 4600 Engineering Seminar	(0)	Chemical Engineering course with an inorganic component	Var.	
		Chemical Engineering Project	Var.	(4)
		Additional Chemical Engineering courses to be transferred back from Rutgers/NJIT to reach the min. total credits required (80) for this area.	Var	
GENERAL STUDIES REQUIREMENTS:		48 Total Credits		
No more than 12 credits in any "G" category may be applied towards the BS degree.		32 Credits		
GEN 1120 Rhetoric and Comp.		GNM General Natural Science & Math		
GIS-General Integration & Synthesis (Jr. yr.)		GNM or Trans. Engineering Course		
GAH General Arts & Humanities		GSS General Social Science		
GAH		GSS (upper level) or GIS		
AT SOME DISTANCE Electives - Courses unrelated to your major		16 Credits		
GEN 2180 Engineering Graphics		MGMT 3110 Intro. to Management		
CSIS 2101 Programming & Prob. Solv. I		Economics Course (Transferred)		
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.				
(A) Arts		(V) Values/Ethics		
(H) Historical Consciousness		(I) International/Multicultural		
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)				
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.				
W1	W1/W2	W1/W2	W1/W2 at 3000 Level	
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)				
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.				
Q1		Q2		Q1 or Q2

Prerequisites must be met, check course description on the web.

"The student is responsible for insuring that all graduation requirements are met" (Bulletin). Consult with your preceptor and/or the Center for Academic Advising on a regular basis.

All Bachelor degrees require a minimum of 128 credits and a 2.00 cumulative average.

BS ENGINEERING / MATH DUAL DEGREE PROGRAM				pg 1 of 2	NAMS
Academic Year		Fall 2012-Spring 2013		80 Total Credits	
All courses require a "C" or better		Group I Choose one courses from: MATH 4431 Advanced Calculus MATH 4432 Complex Analysis MATH 4441 Algebraic Structures MATH 4445 Modern Geometry		(4)	
MATH 2215 Calculus I	(5)	Group II Choose one courses from: MATH 4451 Probability & Stats I MATH 4452 Probability & Stats II MATH 4461 Numerical Analysis MATH 4471 Computer Algorithms MATH 4472 Theory of Computation MATH 4481 Topics in Math (may be in group I)		(4)	
MATH 2216 Calculus II	(5)	Cognate Courses (26 credits) PHYS 2300 Statics PHYS 3010 PHYS III PHYS 3200 Mech. Of Materials PHYS 3220 Mechanics ENGN 4600 Engr Seminar CHEM I 2110/15 w/Lab CHEM IV 2140/45 w/Lab			
MATH 2217 Calculus III	(5)				
MATH 3323 Linear Algebra	(4)				
MATH 3325 Foundations of MATH	(4)				
MATH 3328 Differential Equations	(4)				
PHYS 2220/25 Physics I w/Lab	(6)				
PHYS 2230/35 PHYS II w/Lab	(6)				
Two Upper level math or math-based engineering approved by program coordinator (6-8)					
GENERAL STUDIES REQUIREMENTS:		PHYS 3010 PHYS III		48 Total Credits	
No more than 12 credits in any "G" category may be applied towards the BS degree.				32 Credits	
GEN 1120 Rhetoric and Comp.		GNM or Transfer Engineering course			
GIS-General Integration & Synthesis (Jr. yr.)		GNM or Trans. Engineering Course			
GAH General Arts & Humanities		GSS General Social Science			
GAH		GSS (upper level) or GIS			
AT SOME DISTANCE Electives - Courses unrelated to your major				16 Credits	
GEN 2180 Engineering Graphics		MGMT 3110 Intro. to Management			
CSIS 2101 Programming & Prob. Solv. I		Economics Course (Transferred)			
OR C++ Course					
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should be completed within the 128 credits needed to graduate.					
(A) Arts		(V) Values/Ethics			
(H) Historical Consciousness		(I) International/Multicultural			
GENERAL STUDIES WRITING REQUIREMENT: (4 courses)					
Two W1 courses may be in transfer. W2 courses must be taken at Stockton.					
W1	W1/W2	W1/W2	W1/W2	W1/W2 at 3000 Level	
GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)					
Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.					
Q1		Q2		Q1 or Q2	

Prerequisites must be met, check course description on the web.

"The student is responsible for insuring that all graduation requirements are met" (Bulletin). Consult with your preceptor and/or the Center for Academic Advising on a regular basis.

All Bachelor degrees require a minimum of 128 credits and a 2.00 cumulative average.

Stockton course requirement for the Engineering/Mathematics Dual-degree Program Academic Year Fall 2009– Spring 2010

RSC: B.S. in Mathematics

Rutgers U.: B.S. in Mechanical Engineering, Civil Engineering or Engineering Science and Mechanics

NJIT: B.S. in Mechanical Engineering, Industrial Engineering, Manufacturing Engineering
or Engineering Science and Mechanics

I. Core and Program courses:

- Mathematics: Calc. I, Calc. II, Calc. III, Differential Equations, Linear Algebra,
Foundation of Mathematics and two 4000 level Math courses
- Physics: Physics I, Physics II, Physics III, Statics, Mechanics and Mechanics of Materials
- Chemistry: Chem. I and Chem. IV
- Engineering: ENGN 4600 (Two upper-level math or math based engineering courses
need to be taken at the engineering school. These courses are selected after
consulting with the engineering dual-degree program coordinator.)

II. Liberal Studies

Rutgers

- GEN 2180 Engineering Graphics
- GEN 1120 Rhet. & Comp. (or GEN 1013)

- Two GAH courses and two GSS courses
(one of the four must be an upper level)
- One GIS course

- MGMT 3110 at RSC and
an Economics course at Rutgers
OR ECON 1200 and ECON 1400 at RSC

NJIT

- 2180 Engineering Graphics
- GEN 1120 Rhetoric and Comp.
- C++ Course •C++ Course
- Two GAH courses and one GSS course
- Two GIS courses
- MGMT 3110 at RSC and an Economics at NJIT

NOTES: 8 credit hours in technical courses at the engineering school will be transferred back
to satisfy Stockton GNM requirements.

G-courses are selected after consulting with the coordinator of the engineering dual-degree program

One GAH or GSS course must include freshman seminar

**"The student is responsible for insuring that all graduation requirements are met" (Bulletin). Consult with your
preceptor and/or the Center for Academic Advising on a regular basis.**