The University of Texas Rio Grande Valley

2017-2018

Bachelor of Science in Computational Science

Computational Chemistry Concentration

		!	H	A	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
FIRST YEAR	FALL		3		Choose 1	Communication (Core)	C	010	For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387.	See General Education Core for more details Options: ENGL 1301 or ENGL 1387 (H)
			4		MATH 2413	Calculus I (Core)	C	020	MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test admistered by the Department of Mathematics.	See General Education Core for more details and Support Courses for the 1 credit MATH 2413 Lab.
			3		Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327
			4		CHEM 1311/ CHEM 1111	General Chemistry I and General Chemistry I Lab		030/ 090		See General Education Core for more details
			3		Choose 1	Integrative & Experiential Learning		090		See General Education Core for More Details. Options: CSCI 1380
					UNIV 1301	Learning Framework				
			17	**(0)**	**Semester Total**					
	SPRING		3		Choose 1	Communication (Core)	C	010	For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387.	See General Education Core for more details Options: ENGL 1302 or ENGL 1388 (H) or ENGL 1305
			4		MATH 2414	Calculus II			MATH 2413 (or MATH 2487) with a grade of 'C' or better.	See Support Courses.
			3		Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1302 or HIST 1388 or HIST/MASC 2328.
			4		CHEM 1312/ CHEM 1112	General Chemistry II and General Chemistry II Lab		030/ 090	MATH 2413 (or MATH 2487) and concurrent enrollment in MATH 2414 (or MATH 2488).	See General Education Core for more details.
			3		CSCI 2380	Computer Science II			CSCI 1370 (or CSCI 1378) or CMPE 1370 (or CMPE 1378) or CSCI 1380 (or CSCI 1387) or consent of instructor.	See Major.
			17	**(0)**	**Semester Total**					
SECOND YEAR	FALL		3		MATH 2318	Linear Algebra			MATH 2413 (or MATH 2487) with a grade of 'C' or better.	See Support Courses.
			3		Choose 1	Government/Political Science (Core)		070		See General Education Core for more details Options: POLS 2305 or POLS 2385 (H)
			4		BIOL 1406	General Biology I and Lab				See Concentration.
			3		PHIL 1310	Ethics, Hapiness, and the Good Life				Must enroll in Engineering designated section
			13	**(0)**	**Semester Total**					
	SPRING		3	(3)	MATH 3331	Applied Statistics I			MATH 2413 (or MATH 2487) with a grade of 'C' or better.	See Support Courses.
			3		CSCI 2333	Computer Organization and Assembly Language			CSCI 1370 (or CSCI 1378) or CMPE 1370 (or CMPE 1378) or CSCI 1380 (or CSCI 1387).	See Major.
			3		Choose 1	Government/Political Science (Core)		070		See General Education Core for more details Options: POLS 2306 or POLS 2386 (H)
			3		Choose 1	Creative Arts (Core)		050		See General Education Core for course options.
			4		BIOL 1407	General Biology II and Lab			BIOL 1406.	See Concentration.
			1		Choose 1	Integrative and Experiential Learning		090		See General Education Core for course options.
			17	**(3)**	**Semester Total Hours**					

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www.utrgv.edu/core

		!	H	A	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
THIRD YEAR	FALL		3	(3)	CSCI 3310	Discrete Data Structures			MATH 2413 with grade of 'C' or better; and CSCI/CMPE 1370 (or CSCI/CMPE 1378).	See Major.
			3		ELEE 2330	Digital Systems Engineering I				See Major.
			1		ELEE 2130	Digital Systems Engineering I Lab			Credit/registration in ELEE 2330.	See Major.
			3		Choose 1	Social and Behavioral Sciences (Core)		080		See General Education Core for more details.
			4		BIOL 2343/ BIOL 2143	General Biology III and Lab			BIOL 1407 (or BIOL 1488) and credit/registration in BIOL 2143.	See Concentration.
			14	**(3)**	**Semester Total**					
	SPRING		3	(3)	CSCI 3333	Algorithms and Data Structures			CSCI/CMPE 2380 (or CSCI/CMPE 2388); and credit/registration for MATH 2346 or CSCI 3310 or MATH 2305.	See Major.
			3	(3)	CSCI 3340	Software Engineering I			CSCI 2380 (or CSCI 2388) or CMPE 2380 (CMPE 2388), and 3 advanced hours in CSCI courses.	See Major.
			4	(4)	BIOL 3409	Ecology			9 hours of Biology, including BIOL 1407 (or BIOL 1488).	See Concentration.
			3	(3)	CSCI X3XX	Advance Elective				See Computational Science Electives
			13	**(13)**	**Semester Total**					
FOURTH YEAR		!	H	A	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
	FALL		3	(3)	CSCI 4390	Senior Project			CSCI 3340 or CMPE 3340 and consent of instructor.	See Major.
			3	(3)	CSCI 4333	Database Design and Implementation			CSCI 3333 or CMPE 3333.	
			3	(3)	CSCI X3XX	Advance Elective				See Computational Science Electives
			4	(4)	BIOL 3413	Genetics			BIOL 1406 (or BIOL 1487) , BIOL 1407 (or BIOL 1487), CHEM 1311, CHEM 1111, CHEM 1312, and CHEM 1112	See Concentration.
			3	(3)	BIOL 4301	Evolution			BIOL 2343.	See Concentration.
			16	**(16)**	**Semester Total**					
	SPRING		3	(3)	CSCI 4345	Computer Networks			CSCI 3333 or CMPE 3333.	See Major.
			3	(3)	BIOL X3XX	Advanced Elective				See Concentration.
			3	(3)	CSCI X3XX	Advance Elective				See Computational Science Electives
			4	(4)	BIOL X3XX	Advanced Elective				See Concentration.
			13	**(13)**	**Semester Total**					

Graduation Requirements

120 **TOTAL HOURS**
(48) **TOTAL ADVANCED HOURS**

Approved: Thursday, May 25, 2017
Revised:

CORE: The 2017-2018 list of core courses can be found at: www.utrgv.edu > Academics > Undergraduate > General Education Core
www.utrgv.edu/core

Symbols Key

Critical ('!'): sequence sensitive course.
Minimum Grade: A - Excellent; B - Good; C - Satisfactory; D - Below Average; CR - Credit; P - Passing; S - Satisfactory.

General Education Core (GEC) Sections: 010 - Communication; 020 - Mathematics; 030 - Life and Physical Sciences; 040 - Language, Philosophy & Culture; 050 - Creative Arts; 060 - American History; 070 - Government/Political Science; 080 - Social and Behavioral Sciences; 090 - Computer Application; 090 - Interdisciplinary ;090 - Science Labs; 090 - Wellness.

Language Proficiency Requirement: Student is required to demonstrate language proficiency in a language other than English at the undergraduate level equivalent to a minimum of six credits.

The University of Texas Rio Grande Valley

2017-2018

Bachelor of Science in Computational Science

Computational Chemistry Concentration

		!	H	A	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
FIRST YEAR	FALL		3		Choose 1	Communication (Core)	C	010	For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387.	See General Education Core for more details Options: ENGL 1301 or ENGL 1387 (H)
			4		MATH 2413	Calculus I (Core)	C	020	MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test admistered by the Department of Mathematics.	See General Education Core for more details and Support Courses for the 1 credit MATH 2413 Lab.
			3		Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327
			4		CHEM 1311/ CHEM 1111	General Chemistry I and General Chemistry I Lab		030/ 090		See General Education Core for more details
			3		Choose 1	Integrative & Experiential Learning		090		See General Education Core for More Details. Options: CSCI 1380
					UNIV 1301	Learning Framework				
			17	(0)	Semester Total					
	SPRING		3		Choose 1	Communication (Core)	C	010	For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387.	See General Education Core for more details Options: ENGL 1302 or ENGL 1388 (H) or ENGL 1305
			4		MATH 2414	Calculus II			MATH 2413 (or MATH 2487) with a grade of 'C' or better.	See Support Courses.
			3		Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1302 or HIST 1388 or HIST/MASC 2328.
			4		CHEM 1312/ CHEM 1112	General Chemistry II and General Chemistry II Lab		030/ 090	MATH 2413 (or MATH 2487) and concurrent enrollment in MATH 2414 (or MATH 2488).	See General Education Core for more details.
			3		CSCI 2380	Computer Science II			CSCI 1370 (or CSCI 1378) or CMPE 1370 (or CMPE 1378) or CSCI 1380 (or CSCI 1387) or consent of instructor.	See Major.
			17	(0)	Semester Total					
SECOND YEAR	FALL	!	H	A	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
			3		MATH 2318	Linear Algebra			MATH 2413 (or MATH 2487) with a grade of 'C' or better.	See Support Courses.
			4		CHEM 2301/ CHEM 2101	Analytical Chemistry and Lab				See Concentration.
			3		Choose 1	Government/Political Science (Core)		070		See General Education Core for more details Options: POLS 2305 or POLS 2385 (H)
			3		Choose 1	Social and Behavioral Sciences (Core)		080		See General Education Core for more details.
			3		PHIL 1310	Ethics, Hapiness, and the Good Life				Must enroll in Engineering designated section
			16	(0)	Semester Total					
	SPRING		3	(3)	MATH 3331	Applied Statistics I			MATH 2413 (or MATH 2487) with a grade of 'C' or better.	See Support Courses.
			3		CSCI 2333	Computer Organization and Assembly Language			CSCI 1370 (or CSCI 1378) or CMPE 1370 (or CMPE 1378) or CSCI 1380 (or CSCI 1387).	See Major.
			3		Choose 1	Government/Political Science (Core)		070		See General Education Core for more details Options: POLS 2306 or POLS 2386 (H)
			3		Choose 1	Creative Arts (Core)		050		See General Education Core for course options.
			4		CHEM 2323/ CHEM 2123	Organic Chemistry and Lab				See Concentration.
			1		Choose 1	Integrative and Experiential Learning		090		See General Education Core for course options.
			17	(3)	Semester Total					

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www.utrgv.edu/core

		!	H	A	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
THIRD YEAR	FALL		3	(3)	CSCI 3310	Discrete Data Structures			MATH 2413 with grade of 'C' or better; and CSCI/CMPE 1370 (or CSCI/CMPE 1378).	See Major.
			3		ELEE 2330	Digital Systems Engineering I				See Major.
			1		ELEE 2130	Digital Systems Engineering I Lab			Credit/registration in ELEE 2330.	See Major.
			4	(4)	CHEM 3303/ CHEM 3103	Biochemistry and Biochemistry Lab			CHEM 2323	See Concentration.
			4	(4)	CHEM 3304/ CHEM 3104	Physical Chemistry and Physical Chemistry Lab			PHYS 1402; MATH 2413 (or MATH 2487) with a grade of 'C' or better and registration in MATH 2414 (or MATH 2488).	See Concentration.
			15	**(11)**	**Semester Total**					
	SPRING		3	(3)	CSCI 3333	Algorithms and Data Structures			CSCI/CMPE 2380 (or CSCI/CMPE 2388); and credit/registration for MATH 2346 or CSCI 3310 or MATH 2305.	See Major.
			3	(3)	CSCI 3340	Software Engineering I			CSCI 2380 (or CSCI 2388) or CMPE 2380 (CMPE 2388), and 3 advanced hours in CSCI courses.	See Major.
			5	(5)	CHEM 3301/ CHEM 3202	Inorganic Chemistry and Inorganic Chemistry Lab				See Concentration.
			3	(3)	CSCI X3XX	Advance Elective				See Computational Science Electives
			14	**(14)**	**Semester Total**					
FOURTH YEAR		!	H	A	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
	FALL		3	(3)	CSCI 4390	Senior Project			CSCI 3340 or CMPE 3340 and consent of instructor.	See Major.
			3	(3)	CSCI 4333	Database Design and Implementation			CSCI 3333 or CMPE 3333.	
			3	(3)	CSCI X3XX	Advance Elective				See Computational Science Electives
			3	(3)	CHEM X3XX	Advance Elective				See Concentration.
			3	(2)	CHEM X3XX	Advance Elective				See Concentration.
			15	**(14)**	**Semester Total**					
	SPRING		3	(3)	CSCI 4345	Computer Networks			CSCI 3333 or CMPE 3333.	See Major.
			3		CHEM X3XX	Elective				See Concentration.
			3	(3)	CSCI X3XX	Advance Elective				See Computational Science Electives
			9	**(6)**	**Semester Total**					

Graduation Requirements

120 **TOTAL HOURS**
(48) **TOTAL ADVANCED HOURS**

Approved: Thursday, May 25, 2017
Revised:

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Critical ('!'): sequence sensitive course.
Minimum Grade: A - Excellent; B - Good; C - Satisfactory; D - Below Average; CR - Credit; P - Passing; S - Satisfactory.

General Education Core (GEC) Sections: 010 - Communication; 020 - Mathematics; 030 - Life and Physical Sciences; 040 - Language, Philosophy & Culture; 050 - Creative Arts; 060 - American History; 070 - Government/Political Science; 080 - Social and Behavioral Sciences; 090 - Computer Application; 090 - Interdisciplinary ;090 - Science Labs; 090 - Wellness.

Language Proficiency Requirement: Student is required to demonstrate language proficiency in a language other than English at the undergraduate level equivalent to a minimum of six credits.

The University of Texas Rio Grande Valley

2017-2018

Bachelor of Science in Computational Science

Computational Mathematics concentration

		!	H	A	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
FIRST YEAR	FALL		3		Choose 1	Communication (Core)	C	010	For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387.	See General Education Core for more details Options: ENGL 1301 or ENGL 1387 (H)
			4		MATH 2413	Calculus I (Core)	C	020	MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test admistered by the Department of Mathematics.	See General Education Core for more details and Support Courses for the 1 credit MATH 2413 Lab.
			3		Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327
			3		Choose 1	Creative Arts (Core)		050		See General Education Core for course options.
			3		Choose 1	Integrative & Experiential Learning		090		See General Education Core for More Details. Options: CSCI 1380
					UNIV 1301	Learning Framework				
			16	**(0)**	**Semester Total**					
	SPRING		3		Choose 1	Communication (Core)	C	010	For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387.	See General Education Core for more details Options: ENGL 1302 or ENGL 1388 (H) or ENGL 1305
			4		MATH 2414	Calculus II			MATH 2413 (or MATH 2487) with a grade of 'C' or better.	See Support Courses.
			3		Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1302 or HIST 1388 or HIST/MASC 2328.
			4		PHYS 2425	Physics for Scientists and Engineers I (Core)		030/ 090	MATH 2413 (or MATH 2487) and concurrent enrollment in MATH 2414 (or MATH 2488).	See General Education Core for more details.
			3		CSCI 2380	Computer Science II			CSCI 1370 (or CSCI 1378) or CMPE 1370 (or CMPE 1378) or CSCI 1380 (or CSCI 1387) or consent of instructor.	See Major.
			17	**(0)**	**Semester Total**					
SECOND YEAR	FALL	!	H	A	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
			3		MATH 2318	Linear Algebra			MATH 2413 (or MATH 2487) with a grade of 'C' or better.	See Support Courses.
			4		MATH 2415	Calculus III			MATH 2414 (or MATH 2488) with a grade of 'C' or better.	See Concentration.
			3		Choose 1	Government/Political Science (Core)		070		See General Education Core for more details Options: POLS 2305 or POLS 2385 (H)
			3		Choose 1	Social and Behavioral Sciences (Core)		080		See General Education Core for options.
			3		PHIL 1310	Ethics, Hapiness, and the Good Life				Must enroll in Engineering designated section
			16	**(0)**	**Semester Total**					
	SPRING		3	(3)	MATH 3331	Applied Statistics I			MATH 2413 (or MATH 2487) with a grade of 'C' or better.	See Support Courses.
			3		CSCI 2333	Computer Organization and Assembly Language			CSCI 1370 (or CSCI 1378) or CMPE 1370 (or CMPE 1378) or CSCI 1380 (or CSCI 1387).	See Major.
			3		Choose 1	Government/Political Science (Core)		070		See General Education Core for more details Options: POLS 2306 or POLS 2386 (H)
			4		PHYS 2426	Physics for Scientists and Engineers I (Core)		030/ 090	PHYS 2425	See General Education Core for more details.
			3	(3)	MATH 3341	Diffefential Equations			MATH 2414 (or MATH 2488) and MATH 2318 with a grade of 'C' or better.	See Concentration.
			1		Choose 1	Integrative and Experiential Learning		090		See General Education Core for course options.
			17	**(6)**	**Semester Total**					

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		!	H	A	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
THIRD YEAR	FALL		3	(3)	CSCI 3310	Discrete Data Structures			MATH 2413 with grade of 'C' or better; and CSCI/CMPE 1370 (or CSCI/CMPE 1378).	See Major.
			3		ELEE 2330	Digital Systems Engineering I				See Major.
			1		ELEE 2130	Digital Systems Engineering I Lab			Credit/registration in ELEE 2330.	See Major.
			3	(3)	MATH 3350	Introduction to Mathematical Proof			MATH 2318 with a grade of a 'C' or better.	See Concentration.
			3	(3)	MATH 3352	Modern Geometry I			MATH 2318 with a grade of 'C' or better.	See Concentration.
			13	**(9)**	**Semester Total**					
	SPRING		3	(3)	CSCI 3333	Algorithms and Data Structures			CSCI/CMPE 2380 (or CSCI/CMPE 2388); and credit/registration for MATH 2346 or CSCI 3310 or MATH 2305.	See Major.
			3	(3)	CSCI 3340	Software Engineering I			CSCI 2380 (or CSCI 2388) or CMPE 2380 (CMPE 2388), and 3 advanced hours in CSCI courses.	See Major.
			3	(3)	MATH 3363	Modern Algebra I			MATH 2318 and MATH 3350, each with a grade of 'C' or better.	See Concentration.
			3	(3)	CSCI X3XX	Advance Elective				See Computational Science Electives
			12	**(12)**	**Semester Total**					
FOURTH YEAR		!	H	A	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
	FALL		3	(3)	CSCI 4390	Senior Project			CSCI 3340 or CMPE 3340 and consent of instructor.	See Major.
			3	(3)	CSCI 4333	Database Design and Implementation			CSCI 3333 or CMPE 3333.	
			3	(3)	CSCI X3XX	Advance Elective				See Computational Science Electives
			3	(3)	MATH X3XX	Advance Elective				See Concentration.
			3	(3)	MATH X3XX	Advance Elective				See Concentration.
			15	**(15)**	**Semester Total**					
	SPRING		3	(3)	CSCI 4345	Computer Networks			CSCI 3333 or CMPE 3333.	See Major.
			4	(4)	CSCI X4XX	Advance Elective				See Concentration.
			3	(3)	CSCI X3XX	Advance Elective				See Computational Science Electives
			4	(4)	CSCI X4XX	Advance Elective				See Concentration.
			14	**(14)**	**Semester Total**					

Graduation Requirements

120 **TOTAL HOURS**
(56) **TOTAL ADVANCED HOURS**

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Revised:

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Language Proficiency Requirement: Student is required to demonstrate language proficiency in a language other than English at the undergraduate level equivalent to a minimum of six credits.

The University of Texas Rio Grande Valley

2017-2018

Bachelor of Science in Computational Science

Computational Physics concentration

		!	H	A	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
FIRST YEAR	FALL		3		Choose 1	Communication (Core)	C	010	For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387.	See General Education Core for more details Options: ENGL 1301 or ENGL 1387 (H)
			4		MATH 2413	Calculus I (Core)	C	020	MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test admistered by the Department of Mathematics.	See General Education Core for more details and Support Courses for the 1 credit MATH 2413 Lab.
			3		Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327
			3		Choose 1	Creative Arts (Core)		050		See General Education Core for course options.
			3		Choose 1	Integrative & Experiential Learning		090		See General Education Core for More Details. Options: CSCI 1380
					UNIV 1301	Learning Framework				
			16	**(0)**	**Semester Total**					
	SPRING		3		Choose 1	Communication (Core)	C	010	For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387.	See General Education Core for more details Options: ENGL 1302 or ENGL 1388 (H) or ENGL 1305
			4		MATH 2414	Calculus II			MATH 2413 (or MATH 2487) with a grade of 'C' or better.	See Support Courses.
			3		Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1302 or HIST 1388 or HIST/MASC 2328.
			4		PHYS 2425	Physics for Scientists and Engineers I (Core)		030/ 090	MATH 2413 (or MATH 2487) and concurrent enrollment in MATH 2414 (or MATH 2488).	See General Education Core for more details.
			3		CSCI 2380	Computer Science II			CSCI 1370 (or CSCI 1378) or CMPE 1370 (or CMPE 1378) or CSCI 1380 (or CSCI 1387) or consent of instructor.	See Major.
			17	**(0)**	**Semester Total**					
SECOND YEAR	FALL	!	H	A	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
			3		MATH 2318	Linear Algebra			MATH 2413 (or MATH 2487) with a grade of 'C' or better.	See Support Courses.
			4		MATH 2415	Calculus III			MATH 2414 (or MATH 2488) with a grade of 'C' or better.	See Concentration.
			3		Choose 1	Government/Political Science (Core)		070		See General Education Core for more details Options: POLS 2305 or POLS 2385 (H)
			3		ECON 2301	Social and Behavioral Sciences (Core)		080		See General Education Core for more details.
			3		PHIL 1310	Ethics, Hapiness, and the Good Life				Must enroll in Engineering designated section
			16	**(0)**	**Semester Total**					
	SPRING		3	(3)	MATH 3331	Applied Statistics I			MATH 2413 (or MATH 2487) with a grade of 'C' or better.	See Support Courses.
			3		CSCI 2333	Computer Organization and Assembly Language			CSCI 1370 (or CSCI 1378) or CMPE 1370 (or CMPE 1378) or CSCI 1380 (or CSCI 1387).	See Major.
			3		Choose 1	Government/Political Science (Core)		070		See General Education Core for more details Options: POLS 2306 or POLS 2386 (H)
			4		PHYS 2426	Physics for Scientists and Engineers I (Core)		030/ 090	PHYS 2425	See General Education Core for more details.
			3	(3)	MATH 3341	Diffefential Equations			MATH 2414 (or MATH 2488) and MATH 2318 with a grade of 'C' or better.	See Concentration.
			1		Choose 1	Integrative and Experiential Learning		090		See General Education Core for course options.
			17	**(6)**	**Semester Total**					

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www.utrgv.edu/core

		!	H	A	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
THIRD YEAR	FALL		3	(3)	CSCI 3310	Discrete Data Structures			MATH 2413 with grade of 'C' or better; and CSCI/CMPE 1370 (or CSCI/CMPE 1378).	See Major.
			3		ELEE 2330	Digital Systems Engineering I				See Major.
			1		ELEE 2130	Digital Systems Engineering I Lab			Credit/registration in ELEE 2330.	See Major.
			3	(3)	PHYS 3303	Thermodynamics			MATH 2415 and either PHYS 2412 or PHYS 2426.	See Concentration.
			3	(3)	PHYS 3305	Classical Mechanics			PHYS 2426 and MATH 2415.	See Concentration.
			13	**(9)**	**Semester Total**					
	SPRING		3	(3)	CSCI 3333	Algorithms and Data Structures			CSCI/CMPE 2380 (or CSCI/CMPE 2388); and credit/registration for MATH 2346 or CSCI 3310 or MATH 2305.	See Major.
			3	(3)	CSCI 3340	Software Engineering I			CSCI 2380 (or CSCI 2388) or CMPE 2380 (CMPE 2388), and 3 advanced hours in CSCI courses.	See Major.
			4	(4)	PHYS 3402	Modern Physics			PHYS 2426.	See Concentration.
			3	(3)	CSCI X3XX	Advance Elective				See Computational Science Electives
			13	**(13)**	**Semester Total**					
FOURTH YEAR		!	H	A	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
	FALL		3	(3)	CSCI 4390	Senior Project			CSCI 3340 or CMPE 3340 and consent of instructor.	See Major.
			3	(3)	CSCI 4333	Database Design and Implementation			CSCI 3333 or CMPE 3333.	
			3	(3)	CSCI X3XX	Advance Elective				See Computational Science Electives
			3	(3)	PHYS 3301	Electromagnetic Theory I			MATH 2415 and either PHYS 2426 or PHYS 2412.	See Concentration.
			3		PHYS X3XX	Elective				See Concentration.
			15	**(12)**	**Semester Total**					
	SPRING		3	(3)	CSCI 4345	Computer Networks			CSCI 3333 or CMPE 3333.	See Major.
			3	(3)	PHYS 4303	Quantum Mechanics I			PHYS 3305 and PHYS 3311.	See Concentration.
			3	(3)	CSCI X3XX	Advance Elective				See Computational Science Electives
			4		PHYS X4XX	Elective				See Concentration.
			13	**(9)**	**Semester Total**					

Graduation Requirements

120 **TOTAL HOURS**
(49) **TOTAL ADVANCED HOURS**

Approved: Thursday, May 25, 2017
Revised:

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www.utrgv.edu/core

Symbols Key

Critical ('!'): sequence sensitive course.
Minimum Grade: A - Excellent; B - Good; C - Satisfactory; D - Below Average; CR - Credit; P - Passing; S - Satisfactory.

General Education Core (GEC) Sections: 010 - Communication; 020 - Mathematics; 030 - Life and Physical Sciences; 040 - Language, Philosophy & Culture; 050 - Creative Arts; 060 - American History; 070 - Government/Political Science; 080 - Social and Behavioral Sciences; 090 - Computer Application; 090 - Interdisciplinary ;090 - Science Labs; 090 - Wellness.

Language Proficiency Requirement: Student is required to demonstrate language proficiency in a language other than English at the undergraduate level equivalent to a minimum of six credits.