

Bachelor of Science (BS)

Biomedical Sciences

2020-2021

	Н	Course #	Course Title	Min.	GEC	Prerequisite	Additional Notes
				Grade		For all 010 courses, Satisfactory scores on ENCL parties of ACT test as TSI reading Justing evens or	See General Education Core for more details
	3	Choose 1	Communication (Core)	С	010	ENGL 0301. For ENGL 1302, a grade of "C" or better in ENGL 1301.	Options: ENGL 1301
	3	CHEM 1311	General Chemistry I	С	030	MATH 1314, MATH 1414, MATH 1342, MATH 1343, MATH 2412, MATH 2413 with a grade of "C" or higher."	
	1	CHEM 1111	General Chemistry I Lab	С	090	Credit/Registration in CHEM 1311	
	1	BMED 1101	Introductory Medical Biochemistry	С		Departmental approval	Mission 1
FALL	1	BMED 1103	Introductory Cell Biology	С		Departmental approval	Mission 2
	1	BMED 1104	Introductory Molecular Biology	С		Departmental approval	Mission 1
	1	BMED 2102	Molecules, Cells and Tissues	С		Departmental approval	Mission 2
¥	1	BMED 1102	Introduction to Biomedical Laboratory I	С		Departmental approval	
RST YE/		UNIV	1301 Learning Framework 1101 Academic and Career Success 1001 Living and Working by Design				As required, based on credit hours earned, TSI status, High school rank, major declaration
ш.	12	Semester Tot	al Hours				
	3	Choose 1	Communication (Core)	С	010	For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302, a grade of "C" or better in ENGL 1301.	See General Education Core for more details Options: ENGL 1302
	3	CHEM 1312	General Chemistry II	С	030	CHEM 1311.	
<u>១</u>	1	CHEM 1112	General Chemistry II Lab	С	090	Credit/registration in CHEM 1312.	
SPRIN	3	Choose 1	Spanish Elective				
S	1	BMED 1105	Introductory Medical Genetics	С		Departmental approval	Mission 3
	1	BMED 1106	Introductory Medical Microbiology	С		Departmental approval	Mission 4
	1	BMED 1107	Introductory Immunology	С		Departmental approval	Mission 4
	1		Evolutionary Medicine	С		Departmental approval	Mission 3
	14	Semester Tot	al Hours				
		Cauraa #	Course Title	Min.		Description	Additional Notes
	Н	Course #		Min. Grade	GEC	Prerequisite	Additional Notes
	3	CHEM 2323	Organic Chemistry I		GEC		Additional Notes
	3 1	CHEM 2323 CHEM 2123	Organic Chemistry I Organic Chemistry I Lab			Credit/registration in CHEM 2323.	
	3 1 3	CHEM 2323 CHEM 2123 Choose 1	Organic Chemistry I Organic Chemistry I Lab Creative Arts (Core)	Grade		Credit/registration in CHEM 2323. Additional Notes	PHIL 1330 Strongly Recommended
	3 1 3 1	CHEM 2323 CHEM 2123 Choose 1 BMED 1108	Organic Chemistry I Organic Chemistry I Lab Creative Arts (Core) Introductory Medical Neuroscience	Grade		Credit/registration in CHEM 2323. Additional Notes Departmental approval	PHIL 1330 Strongly Recommended Mission 5
	3 1 3 1	CHEM 2323 CHEM 2123 Choose 1 BMED 1108 BMED 3104	Organic Chemistry I Organic Chemistry I Lab Creative Arts (Core) Introductory Medical Neuroscience Integrated Body Systems I: Cardiovascular and Pulmonary	Grade C C		Credit/registration in CHEM 2323. Additional Notes Departmental approval Departmental approval	PHIL 1330 Strongly Recommended Mission 5 Mission 5
FALL	3 1 3 1	CHEM 2323 CHEM 2123 Choose 1 BMED 1108 BMED 3104 BMED 3108	Organic Chemistry I Organic Chemistry I Lab Creative Arts (Core) Introductory Medical Neuroscience Integrated Body Systems I: Cardiovascular and Pulmonary Integrated Body Systems V: Dermatology, Hematology and Muscoskeletal	C C C		Credit/registration in CHEM 2323. Additional Notes Departmental approval Departmental approval Departmental approval	PHIL 1330 Strongly Recommended Mission 5 Mission 5 Mission 5
	3 1 3 1	CHEM 2323 CHEM 2123 Choose 1 BMED 1108 BMED 3104 BMED 3108 BMED 1110	Organic Chemistry I Organic Chemistry I Lab Creative Arts (Core) Introductory Medical Neuroscience Integrated Body Systems I: Cardiovascular and Pulmonary Integrated Body Systems V: Dermatology, Hematology and Muscoskeletal Introductory Medical Physiology	C C C		Credit/registration in CHEM 2323. Additional Notes Departmental approval Departmental approval Departmental approval Departmental approval	PHIL 1330 Strongly Recommended Mission 5 Mission 5
	3 1 3 1 1 1 1	CHEM 2323 Chem 2123 Choose 1 BMED 1108 BMED 3104 BMED 3108 BMED 1110 BMED 1111	Organic Chemistry I Organic Chemistry I Lab Creative Arts (Core) Introductory Medical Neuroscience Integrated Body Systems I: Cardiovascular and Pulmonary Integrated Body Systems V: Dermatology, Hematology and Muscoskeletal Introductory Medical Physiology Introduction to Biomedical II Lab	C C C		Credit/registration in CHEM 2323. Additional Notes Departmental approval Departmental approval Departmental approval Departmental approval Departmental approval	PHIL 1330 Strongly Recommended Mission 5 Mission 5 Mission 5
	H 3 1 1 1 1 1 1 1 1 1 1	CHEM 2323 CHEM 2123 Choose 1 BMED 1108 BMED 3104 BMED 3108 BMED 1110 BMED 1111 BMED 3121	Organic Chemistry I Organic Chemistry I Lab Creative Arts (Core) Introductory Medical Neuroscience Integrated Body Systems I: Cardiovascular and Pulmonary Integrated Body Systems V: Dermatology, Hematology and Muscoskeletal Introductory Medical Physiology Introduction to Biomedical II Lab Independent Research I	C C C		Credit/registration in CHEM 2323. Additional Notes Departmental approval Departmental approval Departmental approval Departmental approval	PHIL 1330 Strongly Recommended Mission 5 Mission 5 Mission 5
	H 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CHEM 2323 Choose 1 BMED 1108 BMED 3104 BMED 3108 BMED 1110 BMED 1111 BMED 3121 Semester Tot	Organic Chemistry I Organic Chemistry I Lab Creative Arts (Core) Introductory Medical Neuroscience Integrated Body Systems I: Cardiovascular and Pulmonary Integrated Body Systems V: Dermatology, Hematology and Muscoskeletal Introductory Medical Physiology Introduction to Biomedical II Lab Independent Research I al Hours	C C C		Credit/registration in CHEM 2323. Additional Notes Departmental approval Departmental approval Departmental approval Departmental approval Departmental approval	PHIL 1330 Strongly Recommended Mission 5 Mission 5 Mission 5
	H 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CHEM 2323 CHEM 2123 Choose 1 BMED 1108 BMED 3104 BMED 3108 BMED 1110 BMED 1111 BMED 3121 Semester Tot CHEM 2325	Organic Chemistry I Organic Chemistry I Lab Creative Arts (Core) Introductory Medical Neuroscience Integrated Body Systems I: Cardiovascular and Pulmonary Integrated Body Systems V: Dermatology, Hematology and Muscoskeletal Introductory Medical Physiology Introduction to Biomedical II Lab Independent Research I	C C C		Credit/registration in CHEM 2323. Additional Notes Departmental approval Departmental approval Departmental approval Departmental approval Departmental approval	PHIL 1330 Strongly Recommended Mission 5 Mission 5 Mission 5
	H 3 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CHEM 2323 CHOSE 1 BMED 1108 BMED 3104 BMED 3108 BMED 1110 BMED 1111 BMED 3121 Semester Tot CHEM 2325 CHEM 2125	Organic Chemistry I Organic Chemistry I Lab Creative Arts (Core) Introductory Medical Neuroscience Integrated Body Systems I: Cardiovascular and Pulmonary Integrated Body Systems V: Dermatology, Hematology and Muscoskeletal Introductory Medical Physiology Introduction to Biomedical II Lab Independent Research I al Hours Organic Chemistry II	C C C		Credit/registration in CHEM 2323. Additional Notes Departmental approval	PHIL 1330 Strongly Recommended Mission 5 Mission 5 Mission 5
	H 3 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CHEM 2323 Choose 1 BMED 1108 BMED 3104 BMED 3108 BMED 1110 BMED 1111 BMED 3121 Semester Tot CHEM 2325 CHEM 2125 MATH 1342	Organic Chemistry I Organic Chemistry I Lab Creative Arts (Core) Introductory Medical Neuroscience Integrated Body Systems I: Cardiovascular and Pulmonary Integrated Body Systems V: Dermatology, Hematology and Muscoskeletal Introductory Medical Physiology Introduction to Biomedical II Lab Independent Research I al Hours Organic Chemistry II Organic Chemistry II Lab	C C C C C		Credit/registration in CHEM 2323. Additional Notes Departmental approval Departmental approval Departmental approval Departmental approval Departmental approval Departmental approval Credit/Registration in CHEM 2325 College Ready TSI status in Mathematics.	PHIL 1330 Strongly Recommended Mission 5 Mission 5 Mission 5
SECOND YEAR FALL	H 3 1 1 1 1 1 1 1 1 3 3 3 1 3 3 1 1 1 1	CHEM 2323 CHEM 2123 Choose 1 BMED 1108 BMED 3104 BMED 3108 BMED 1110 BMED 1111 BMED 3121 Semester Tot CHEM 2325 CHEM 2125 MATH 1342 PSYC 2301	Organic Chemistry I Organic Chemistry I Lab Creative Arts (Core) Introductory Medical Neuroscience Integrated Body Systems I: Cardiovascular and Pulmonary Integrated Body Systems V: Dermatology, Hematology and Muscoskeletal Introductory Medical Physiology Introduction to Biomedical II Lab Independent Research I al Hours Organic Chemistry II Organic Chemistry II Lab Elementary Statistical Methods	C C C C C	050	Credit/registration in CHEM 2323. Additional Notes Departmental approval Departmental approval Departmental approval Departmental approval Departmental approval Departmental approval Credit/Registration in CHEM 2325 College Ready TSI status in Mathematics.	PHIL 1330 Strongly Recommended Mission 5 Mission 5 Mission 5
SECOND YEAR FALL	H 3 1 1 1 1 1 1 1 1 3 3 1 3 3 1	CHEM 2323 Choose 1 BMED 1108 BMED 3104 BMED 3108 BMED 1110 BMED 3121 Semester Tot CHEM 2325 CHEM 2125 MATH 1342 PSYC 2301 Choose 1	Organic Chemistry I Organic Chemistry I Lab Creative Arts (Core) Introductory Medical Neuroscience Integrated Body Systems I: Cardiovascular and Pulmonary Integrated Body Systems V: Dermatology, Hematology and Muscoskeletal Introductory Medical Physiology Introduction to Biomedical II Lab Independent Research I al Hours Organic Chemistry II Organic Chemistry II Lab Elementary Statistical Methods General Psychology	C C C C C	050	Credit/registration in CHEM 2323. Additional Notes Departmental approval Departmental approval Departmental approval Departmental approval Departmental approval Departmental approval Credit/Registration in CHEM 2325 College Ready TSI status in Mathematics.	PHIL 1330 Strongly Recommended Mission 5 Mission 5 Mission 7
	H 3 1 1 1 1 1 1 1 1 3 3 1 3 3 1	CHEM 2323 CHEM 2123 Choose 1 BMED 1108 BMED 3104 BMED 3108 BMED 1110 BMED 1111 Semester Tot CHEM 2325 CHEM 2125 MATH 1342 PSYC 2301 Choose 1 BMED 2101	Organic Chemistry I Organic Chemistry I Lab Creative Arts (Core) Introductory Medical Neuroscience Integrated Body Systems I: Cardiovascular and Pulmonary Integrated Body Systems V: Dermatology, Hematology and Muscoskeletal Introductory Medical Physiology Introduction to Biomedical II Lab Independent Research I all Hours Organic Chemistry II Organic Chemistry II Lab Elementary Statistical Methods General Psychology Language, Philosophy & Culture (Core)	C C C C C	050	Credit/registration in CHEM 2323. Additional Notes Departmental approval Departmental approval Departmental approval Departmental approval Departmental approval Departmental approval Credit/Registration in CHEM 2325 College Ready TSI status in Mathematics.	PHIL 1330 Strongly Recommended Mission 5 Mission 5 Mission 7 ENGL 2331 Strongly Recommended
SECOND YEAR FALL	H 3 1 1 1 1 1 1 1 1 3 3 1 1 1 1 1 1 1 1	CHEM 2323 CHEM 2123 Choose 1 BMED 1108 BMED 3104 BMED 3104 BMED 3111 BMED 3121 Semester Tot CHEM 2325 CHEM 2125 MATH 1342 PSYC 2301 Choose 1 BMED 2101 BMED 3105	Organic Chemistry I Organic Chemistry I Lab Creative Arts (Core) Introductory Medical Neuroscience Integrated Body Systems I: Cardiovascular and Pulmonary Integrated Body Systems V: Dermatology, Hematology and Muscoskeletal Introductory Medical Physiology Introduction to Biomedical II Lab Independent Research I al Hours Organic Chemistry II Organic Chemistry II Lab Elementary Statistical Methods General Psychology Language, Philosophy & Culture (Core) Gross Anatomy	C C C C C	050	Credit/registration in CHEM 2323. Additional Notes Departmental approval Departmental approval Departmental approval Departmental approval Departmental approval Departmental approval Credit/Registration in CHEM 2325 College Ready TSI status in Mathematics.	PHIL 1330 Strongly Recommended Mission 5 Mission 5 Mission 7 Mission 7 ENGL 2331 Strongly Recommended Mission 7
SECOND YEAR FALL	H 3 1 1 1 1 1 1 1 1 3 3 1 1 1 1 1 1 1 1	CHEM 2323 CHEM 2123 Choose 1 BMED 1108 BMED 3104 BMED 3108 BMED 3111 BMED 3121 Semester Tot CHEM 2325 CHEM 2125 MATH 1342 PSYC 2301 Choose 1 BMED 3105 BMED 3105 BMED 3105	Organic Chemistry I Organic Chemistry I Lab Creative Arts (Core) Introductory Medical Neuroscience Integrated Body Systems I: Cardiovascular and Pulmonary Integrated Body Systems V: Dermatology, Hematology and Muscoskeletal Introductory Medical Physiology Introduction to Biomedical II Lab Independent Research I al Hours Organic Chemistry II Organic Chemistry II Lab Elementary Statistical Methods General Psychology Language, Philosophy & Culture (Core) Gross Anatomy Integrated Body Systems II: Gastrointestinal Systems	C C C C C C C C C C C C C C C C C C C	050	Credit/registration in CHEM 2323. Additional Notes Departmental approval Departmental approval Departmental approval Departmental approval Departmental approval Departmental approval Credit/Registration in CHEM 2325 College Ready TSI status in Mathematics. Departmental approval Departmental approval	PHIL 1330 Strongly Recommended Mission 5 Mission 5 Mission 7 Mission 7 ENGL 2331 Strongly Recommended Mission 7 Mission 6
SECOND YEAR FALL	3 1 3 1 1 1 1 1 1 1 1 3 3 1 3 3 3 1	CHEM 2323 CHEM 2123 Choose 1 BMED 1108 BMED 3104 BMED 3108 BMED 3111 BMED 3121 Semester Tot CHEM 2325 CHEM 2125 MATH 1342 PSYC 2301 Choose 1 BMED 3105 BMED 3105 BMED 3106 BMED 3106 BMED 3107	Organic Chemistry I Organic Chemistry I Lab Creative Arts (Core) Introductory Medical Neuroscience Integrated Body Systems I: Cardiovascular and Pulmonary Integrated Body Systems V: Dermatology, Hematology and Muscoskeletal Introductory Medical Physiology Introduction to Biomedical II Lab Independent Research I al Hours Organic Chemistry II Organic Chemistry II Lab Elementary Statistical Methods General Psychology Language, Philosophy & Culture (Core) Gross Anatomy Integrated Body Systems II: Gastrointestinal Systems Integrated Body Systems III: Renal, Fluid and Electrolytes Integrated Body Systems IV:Endocrine and Reproduction Independent Research II	C C C C C C C C C C C C C C C C C C C	050	Credit/registration in CHEM 2323. Additional Notes Departmental approval Departmental approval Departmental approval Departmental approval Departmental approval Departmental approval Credit/Registration in CHEM 2325 College Ready TSI status in Mathematics. Departmental approval Departmental approval Departmental approval Departmental approval	PHIL 1330 Strongly Recommended Mission 5 Mission 5 Mission 7 Mission 7 ENGL 2331 Strongly Recommended Mission 7 Mission 6 Mission 6

CORE: The 2020-2021 list of core courses can be found in the 2020-2021 Undergraduate Catalog: www.utrgv.edu/catalog > See 'Core Curriculum'

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 - Applied Communication and Literacies; 090 - Humanities; 090 - Leadership; 090 - Science Labs; 090 - Interdisciplinary; 090 - Technologies; 090 - Language Diversity & Writing.

	! Н	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
	3	Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1301 or HIST/MASC 2327
	4	PHYS 1401	General Physics I			MATH 1414 or MATH 1314.	
	1	BMED 3102	Neurochemistry	С			Mission 8
FALL	2	BMED 4280	Advanced Medical Neuroscience			Departmental approval	Mission 8
E .	1	BMED 3103	Human Behavior	С		Departmental approval	Mission 9
	1	BMED 3123	Independent Research III			BMED 3122	
EAR	4	MATH 2413	Calculus I	С	020	MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test administered by the Department of Mathematics.	
RD \	16	Semester Tota	ll Hours				
丰	3	Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1302 or HIST/MASC 2328
	4	PHYS 1402	General Physics II			PHYS 1401.	
	3	BMED 4310	Medical Biochemistry			Departmental approval	Mission 10
SPRING	2	BMED 4250	Advanced Cell Biology			Departmental approval	Mission 11
S P	2	BMED 4260	Advanced Molecular Biology			Departmental approval	Mission 12
	1	BMED 3124	Independent Research IV			BMED 3123.	
	3		Advanced Elective				See Degree Plan for course options. Choose 3 advanced hours from BMED, PSYC, BIOL, CHEM, MATH, PHYS, HPRS, or CSCI.
		Semester Tota		Min.			
	! Н	Course #	Course Title	Grade	GEC	Prerequisite	Additional Notes
	3	POLS 2305	Government/Political Science (Core)		070		See General Education Core for course options.
	3	STAT 3301	Applied Statistics for Science, Engineering and Medical Science	С			
٠,	4	BMED 4440	Medical Microbiology			Departmental approval	Mission 16
FALL	2	BMED 4290	Medical Immunology			Departmental approval	Mission 17
œ	2	BMED 4230	Human Genetics and Medical Genomics			Departmental approval	Mission 18
YEA	2		Medical Bioinformatics, Genomics, and Systems Biology			Departmental approval	Mission 19
長	16	Semester Tota	ll Hours				
FOUR	3	POLS 2306	Government/Political Science (Core)		070		See General Education Core for course options.
	3		Integrative and Experiential Learning (Core)		090		See General Education Core for course options.
o -	1		Integrative and Experiential Learning (Core)		090		
SPRING	2	BMED 4295	Pathophysiology			Departmental approval	Mission 13
	1	BMED 3101	Pathobiology and Host Defense	С		Departmental approval	Mission 13
	1	BMED 3109	Medical Syndromes	С		Departmental approval	Mission 14
	2		Introduction to Complementary and Alternative Medicine			Departmental approval	Mission 15
	13	Semester Total	ll Hours				

120 TOTAL HOURS
(42) Advanced institutional minimum credit hours

Approved: Thursday, October 15, 2020 Revised: Saturday, October 10, 2020

Mission notation describes co-requisite requirements. Courses within a mission cannot be dropped individually, and must be taken together.

Credit for MATH 1314/1414 are recommended prior to initiating program (MATH exam available)

BMED 2103 - Legal Med & Ethics - Strongly Recommended; <u>A GPA of 3.0 must be maintained for progression in the program.</u>