

Bachelor of Science (BS) Biomedical Sciences

	! Н	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
	3	Choose 1	Communication (Core)	C	010	For all 010 courses: Satisfactory scores on English portion of ACT test and TSI examination or ENGL 0301. For ENGL 1302, a grade of "C" or better in ENGL 1301.	See General Education Core for more details Options: ENGL 1301
	3	CHEM 1311	General Chemistry I (Core)	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 (Core)	С	090	Credit/Registration in CHEM 1311	
	1	BMED 1101	Introductory Medical Biochemistry	С		Departmental approval	Mission 1
ALL.	1	BMED 1103	Introductory Cell Biology	С		Departmental approval	Mission 2
L.	1	BMED 1104	Introductory Molecular Biology	С		Departmental approval	Mission 1
	1	BMED 2102	Molecules, Cells and Tissues	С		Departmental approval	Mission 2
œ	1	BMED 1102	Introduction to Biomedical Laboratory I	С		Departmental approval	
IRST YEA		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 Total	al Hours	1			
	3	Choose 1	Communication (Core)	С	010	For all 010 courses: Satisfactory scores on English portion of ACT test and TSI examination 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 (Core)	С	030	CHEM 1311.	
O	1	CHEM 1112	General Chemistry II Lab (Core)	С	090	Credit/registration in CHEM 1312.	
RING	3	Choose 1	Spanish Elective				Spanish placement exam available
R	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
	_		Evolutionary Medicine	С		Departmental approval	Mission 3
	14	Semester Total		Min	_		
					050		
			Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
	3	CHEM 2323	Organic Chemistry I	Grade	GEC		Additional Notes
	3	CHEM 2323 CHEM 2123	Organic Chemistry I Organic Chemistry I Lab	Grade		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	050	Credit/registration in CHEM 2323.	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. Departmental approval	PHIL 1330 Strongly Recommended Mission 5
FALL	3 1 3 1 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. Departmental approval Departmental approval	PHIL 1330 Strongly Recommended Mission 5 Mission 5
FALL	3 1 3 1 1 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. Departmental approval Departmental approval Departmental approval	PHIL 1330 Strongly Recommended Mission 5 Mission 5 Mission 5
FALL	3 1 3 1 1 1 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. Departmental approval Departmental approval Departmental approval Departmental approval	PHIL 1330 Strongly Recommended Mission 5 Mission 5
R FALL	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. Departmental approval Departmental approval Departmental approval Departmental approval Departmental approval	PHIL 1330 Strongly Recommended Mission 5 Mission 5 Mission 5
YEAR FALL	3 1 3 1 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 Independent Research I	C C C		Credit/registration in CHEM 2323. Departmental approval Departmental approval Departmental approval Departmental approval	PHIL 1330 Strongly Recommended Mission 5 Mission 5 Mission 5
ND YEAR FALL	3 1 3 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	C C C		Credit/registration in CHEM 2323. Departmental approval Departmental approval Departmental approval Departmental approval Departmental approval	PHIL 1330 Strongly Recommended Mission 5 Mission 5 Mission 5
ECOND YEAR FALL	3 1 3 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 al Hours	C C C		Credit/registration in CHEM 2323. Departmental approval Departmental approval Departmental approval Departmental approval Departmental approval	PHIL 1330 Strongly Recommended Mission 5 Mission 5 Mission 5
SECOND YEAR FALL	3 1 3 1 1 1 1 1 1 1 1 1 3 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 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. Departmental approval	PHIL 1330 Strongly Recommended Mission 5 Mission 5 Mission 5
SECOND YEAR FALL	3 1 3 1 1 1 1 1 1 1 1 1 3 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. 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	3 1 3 1 1 1 1 1 1 1 1 3 3 1 1 1 1 1 3 3 1 1 1 3 1 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 1 1 1 1 1 1 1 3 1 3 1 1 1 1 1 1 3 1	CHEM 2323 CHEM 2123 Choose 1 BMED 1108 BMED 3104 BMED 3108 BMED 1110 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. 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	3 1 3 1 1 1 1 1 1 1 1 3 3 1 1 3 1 1 1 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 (Core)	C C C C C	050	Credit/registration in CHEM 2323. 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
SECOND YEAR SPRING FALL	3 1 3 1 1 1 1 1 1 1 1 3 3 1 3 3 1 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 al Hours Organic Chemistry II Organic Chemistry II Lab Elementary Statistical Methods General Psychology (Core) Language, Philosophy & Culture (Core)	C C C C C	050	Credit/registration in CHEM 2323. 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	3 1 3 1 1 1 1 1 1 1 1 3 3 1 1 3 3 1	CHEM 2323 CHEM 2123 Choose 1 BMED 1108 BMED 3104 BMED 3108 BMED 1111 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 (Core) Language, Philosophy & Culture (Core) Gross Anatomy	C C C C C C	050	Credit/registration in CHEM 2323. 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 Mission 7
SECOND YEAR FALL	3 1 3 1 1 1 1 1 1 1 3 3 3 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 3106	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 (Core) 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. 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 ENGL 2331 Strongly Recommended Mission 7 Mission 6
SECOND YEAR FALL	3 1 3 1 1 1 1 1 1 1 3 3 3 1 1 1 1 1 1 1	CHEM 2323 CHEM 2123 Choose 1 BMED 1108 BMED 3104 BMED 3108 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 (Core) Language, Philosophy & Culture (Core) Gross Anatomy Integrated Body Systems III: Gastrointestinal Systems Integrated Body Systems III: Renal, Fluid and Electrolytes	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. 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 2022-2023 list of core courses can be found in the 2022-2023 Undergraduate Catalog: www.utrgv.edu/smartcatalog > Bachelors Degree Regulations and Graduation Policies > '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.

	! H	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 2327
	4	PHYS 1401	General Physics I			MATH 1414 or MATH 1314.	Options. 11131 1301 01 11131 2327
	1	BMED 3102	Neurochemistry	С			Mission 8
=	2	BMED 4280	Advanced Medical Neuroscience			Departmental approval	Mission 8
FAI	1	BMED 3103	Human Behavior	С		Departmental approval	Mission 9
	1	BMED 3123	Independent Research III			BMED 3122	
rear	4	MATH 2413	Calculus I (Core)	С	020	MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test administered by the Department of Mathematics.	Prerequiste for MATH 2412: MATH 1314 or MATH 1414 with a grade of 'C' or better; or passing the College Algebra Exemption Test administered by the Department of Mathematics.
RD,	16	Semester Total	al Hours				
弄	3	Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1302 or HIST 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
R R	2	BMED 4260	Advanced Molecular Biology			Departmental approval	Mission 12
	1	BMED 3124	Independent Research IV			BMED 3123.	
	3	Choose 1	Advanced Elective				See Degree Plan for course options. Choose 3 advanced hours from BMED, PSYC, BIOL, CHEM, MATH, PHYS, HPRS, or CSCI.
	18	Semester Total	al Hours				
	! H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
	3	POLS 2305	U.S. Federal Government & Politics (Core)		070		See General Education Core for course options.
	3	STAT 3301	Applied Statistics for Science, Engineering and Medical Science	С			
ا بــ	4	BMED 4440	Medical Microbiology			Departmental approval	Mission 16
FAL	2	BMED 4290	Medical Immunology			Departmental approval	Mission 17
~	2	BMED 4230	Human Genetics and Medical Genomics			Departmental approval	Mission 18
YEA	2	BMED 4220	Medical Bioinformatics, Genomics, and Systems Biology			Departmental approval	Mission 19
픝	16	Semester Tota	al Hours				
-our	3	POLS 2306	Texas Government & Politics (Core)		070		See General Education Core for course options.
	3	Choose 1	Integrative and Experiential Learning (Core)		090		See General Education Core for course options.
(3	1	Choose 1	Integrative and Experiential Learning (Core)		090		
RING	2	BMED 4295	Pathophysiology			Departmental approval	Mission 13
g.	1	BMED 3101	Pathobiology and Host Defense	С		Departmental approval	Mission 13
	1	BMED 3109	Medical Syndromes	С		Departmental approval	Mission 14
	2	BMED 4270	Introduction to Complementary and Alternative Medicine			Departmental approval	Mission 15
	13	Semester Total	al Hours				

120 TOTAL HOURS

Approved: Wednesday, November 16, 2022

(42) Advanced minimum credit hours Revised: Tuesday, September 27, 2022

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; A GPA of 3.0 must be maintained for progression in the program.