A.S. in Physics

to

B.S. in Physics (Biophysics/Pure and Applied Physics)

This four-year plan provides a model for on-time completion of the B.S. in Physics (Pure and Applied Physics) at UTRGV by starting at South Texas College.

Year	First Semester		Second Semester	
FRESHMAN	**STC Requirement**	**UTRGV Equivalent**	**STC Requirement**	**UTRGV Equivalent**
	Creative Arts Core	Creative Arts Core	HIST 1301 **or** HIST 2327 (American History Core)	HIST 1301 **or** HIST 2327 (American History Core)
	COSC 1436 (Major)	CSCI 1380 (Integrative & Experiential Learning Core, **Required at UTRGV**)	CHEM 1411 (Life and Physical Sciences Core)	CHEM 1311 and CHEM 1111 (Approved Science Elective)
	ENGL 1301 (Communications Core)	ENGL 1301 (Communications Core)	ENGL 1302 (Communications Core)	ENGL 1302 (Communications Core)
	MATH 2413 (Mathematics Core)	MATH 2413 (Mathematics Core, **Required at UTRGV**)	MATH 2414 (Major)	MATH 2414 (Major)
	Third Semester			
	STC Requirement		**UTRGV Equivalent**	
	HIST 1302 **or** HIST 2328 (American History Core)		HIST 1302 **or** HIST 2328 (American History Core)	
	Language, Philosophy & Culture Core		Language, Philosophy & Culture Core	
Year	**Fourth Semester**		**Fifth Semester**	
SOPHOMORE	**STC Requirement**	**UTRGV Equivalent**	**STC Requirement**	**UTRGV Equivalent**
	CHEM 1412 (Life and Physical Sciences Core)	CHEM 1312 and CHEM 1112 (Approved Science Elective)	PHYS 2426 (Major)	PHYS 2426 (Life and Physical Sciences Core, **Required at UTRGV**)
	GOVT 2305 (Political Science Core)	POLS 2305 (Political Science Core)	GOVT 2306 (Political Science Core)	POLS 2306 (Political Science Core)
	PHYS 2425 (Major)	PHYS 2425 (Life and Physical Sciences Core, **Required at UTRGV**)	MATH 2415 (Major)	MATH 2415 (Major)
	Social & Behavioral Science Core	Social & Behavioral Science Core	Component Area Option Core	Integrative and Experiential Learning Core

Year	Fall Semester	Spring Semester
JUNIOR	PHYS 1311 – Learning to be a Physicists	PHYS 3402 Modern Physic
	PHYS 2327 Physics for Scientists and Engineers III	PHYS 3303 Thermodynamics
	MATH 3341 Differential Equations	PHYS 3411 Math Methods in Physics I
	Choose One Advanced Science Elective	PHYS 4306 Advanced Physics Lab or PHYS 4101*
	PHYS 3305 Classical Mechanics	PHYS 33XX-43XX Advanced Physics Elective
	Choose 1 Advanced Science Elective	PHYS 33XX-43XX Advanced Physics Elective
Year	**Fall Semester**	**Spring Semester**
SENIOR	Choose One Advanced Science Elective	PHYS 33XX-43XX Advanced Physics Elective
	PHYS 3412 Math Methods in Physics II	PHYS 3302 Electromagnetic Theory II
	PHYS 4305 Statistical Mechanics	PHYS 4304 Quantum Mechanics II
	PHYS 4303 Quantum Mechanics I	PHYS 3301 Electromagnetic Theory I
	PHYS 3304 Optics	PHYS 4300 Undergraduate Research
	Choose One Advanced Science Elective	PHYS 33XX-43XX Advanced Physics Elective

This degree requires 120 hours and a minimum of 42 advanced (3000 and 4000) credit hours.

*PHYS 4101 needs to be taken three times.