

Bachelor of Science (BS)

Physics

Concentration: Biophysics/Medical Physics

For all 010 courses: Satisfactory scores on English portion of ACT test and TSI See General Education Core for more details 3 Choose 1 Communication (Core) C 010 examination or ENGL 0301. For ENGL 1302, a grade of "C" or better in ENGL Options: ENGL 1301 MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption 4 **MATH 2413** Calculus I (Core) С 020 Test administered by the Department of Mathematics. See General Education Core for more details. 3 Choose 1 American History (Core) 060 Options: HIST 1301 or HIST/MASC 2327 1 Choose 1 Integrative/Experiential Learning Option (Core) 090 See General Education Core for course options. 3 Choose 1 Creative Arts (Core) 050 See General Education Core for course options. 1301 Learning Framework As required, based on credit hours earned, TSI status, High UNIV 1101 Academic and Career Success school rank, major declaration 1001 Living and Working by Design 14 Semester Total Hours For all 010 courses: Satisfactory scores on English portion of ACT test and TSI See General Education Core for more details 3 С 010 examination or ENGL 0301. For ENGL 1302, a grade of "C" or better in ENGL Choose 1 Communication (Core) Options: ENGL 1302 or ENGL 1305 4 **MATH 2414** Calculus II С MATH 2413 with a grade of 'C' or better. 4 PHYS 2425 Physics for Scientists and Engineers I (Core) 030/090 MATH 2413 and concurrent enrollment in MATH 2414. See General Education Core for more details. 3 Choose 1 American History (Core) 060 Options: HIST 1302 or HIST/MASC 2328 Concurrent enrollment or credit for MATH 1314 or higher level mathematics 3 CSCI 1380 Computer Science I (Core) 090 17 Semester Total Hours 4 MATH 2415 Calculus III MATH 2414 with a grade of 'C' or better. 4 **PHYS 2426** Physics for Scientists and Engineers II (Core) 030/090 PHYS 2425. POLS 2305 3 U.S. Federal Government & Politics (Core) 070 See General Education Core for more details 3 Choose 1 Social and Behavioral Sciences (Core) 080 See General Education Core for course options. 3 PHYS 2327 Physics for Scientists and Engineers III PHYS 2425. Students may take this course concurrently with PHYS 2426. 17 Semester Total Hours 3 MATH 3341 **Differential Equations** MATH 2414 with a grade of 'C' or better. 3 Biophysics/Medical Physics Concentration Choose 1 See degree plan for course options. PHYS 3402 Modern Physics 4 PHYS 2426 and PHYS 2327. Physics core requirement. 3 POLS 2306 Texas Government & Politics (Core) 070 See General Education Core for more details Biophysics/Medical Physics Concentration 3 Choose 1 See degree plan for course options. 16 Semester Total Hours

CORE: The 2021-2022 list of core courses can be found in the 2021-2022 Undergraduate Catalog: www.utrgv.edu > See 'Core Curriculum'

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.

2021-2022

1	н	Course #	Course Title	Min. GEC Grade	Prerequisite	Additional Notes
	3	PHYS 3303	Thermodynamics		MATH 2415 and PHYS 2426 and PHYS 2327.	Physics core requirement.
		PHYS 4101	Laboratory Research		Consent of instructor.	Not needed if PHYS 4306 taken.
	3	Choose 1	Biophysics/Medical Physics Concentration			See degree plan for course options.
FALL	4	PHYS 3411	Math Methods in Physics I		MATH 3341	Physics core requirement.
	3	PHYS 3305	Classical Mechanics		PHYS 2426 and MATH 2415.	Physics core requirement.
IRD YEAR	3	Choose 1	Biophysics/Medical Physics Concentration			See degree plan for course options.
E	16 Semester Total Hours					
	4	PHYS 3412	Math Methods in Physics II		PHYS 3411	Physics core requirement.
	3	PHYS 4306 or 4101	Advanced Physics Lab or Laboratory Research		Consent of instructor.	Choose either PHYS 4306 or 4101. PHYS 4101 to be taken three times.
SPRING	3	PHYS 4305	Statistical Mechanics		PHYS 3303 and 3411.	Physics core requirement.
	3	Choose 1	Biophysics/Medical Physics Concentration			See degree plan for course options.
	3	Choose 1	Language, Philosophy & Culture (Core)	040		See General Education Core for course options.
	16 Semester Total Hours Min					
'	н	Course #	Course Title	Grade GEC	Prerequisite	Additional Notes
	3	PHYS 4303	Quantum Mechanics I		PHYS 3305 and 3411.	Physics core requirement.
	3	Choose 1	Biophysics/Medical Physics Concentration			See degree plan for course options.
FALL	3	PHYS 3304	Optics		MATH 2415 and PHYS 2426 and PHYS 2327.	Physics core requirement.
R		PHYS 4101	Laboratory Research		Consent of instructor.	Not needed if PHYS 4306 taken.
ЛКТН УЕ А	3	PHYS 3301	Electromagnetic Theory I		MATH 2415 and PHYS 2426.	Physics core requirement.
FOL	12 Semester Total Hours					
	3	PHYS 3302	Electromagnetic Theory II		PHYS 3301.	Physics core requirement.
S S	3	PHYS 4304	Quantum Mechanics II		PHYS 4303.	Physics core requirement.
SPRIN	3	PHYS 4300	Undergraduate Research Project		Senior standing in the Physics Degree Program and consent of a supervising faculty member.	Capstone.
	3	XXXX X3XX	Free Elective			
	12 Se	emester Total Hours				

120 TOTAL HOURS

42 Advanced minimum credit hours

Approved: Saturday, October 23, 2021 Revised: Saturday, October 9, 2021