

Bachelor of Science (BS)

Physics

Concentration: Biophysics/Medical Physics

		Grade			Additional Notes
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 1301
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.	
Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1301 or HIST/MASC 2327
Choose 1	Integrative/Experiential Learning Option (Core)		090		See General Education Core for course options.
Choose 1	Creative Arts (Core)		050		See General Education Core for course options.
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
emester Total Hours					
Choose 1	Communication (Core)	С	010	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 or ENGL 1305
MATH 2414	Calculus II	С		MATH 2413 with a grade of 'C' or better.	
PHYS 2425	Physics for Scientists and Engineers I		030/090	MATH 2413 and concurrent enrollment in MATH 2414.	
Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1302 or HIST/MASC 2328
CSCI 1380	Computer Science I		090	Concurrent enrollment or credit for MATH 1314 or higher level mathematics course.	
		Min			
		Grade	GEC	Prerequisite	Additional Notes
MATH 2415	Calculus III			MATH 2414 with a grade of 'C' or better.	
PHYS 2426	Physics for Scientists and Engineers II		030/090	PHYS 2425.	
POLS 2305	Government/Political Science (Core)		070		See General Education Core for more details
Choose 1	Social and Behavioral Sciences (Core)		080		See General Education Core for course options.
PHYS 2327	Physics for Scientists and Engineers III			PHYS 2425. Students may take this course concurrently with PHYS 2426.	
emester Total Hours					
MATH 3341	Differential Equations			MATH 2414 with a grade of 'C' or better.	
Choose 1	Biophysics/Medical Physics Concentration				See degree plan for course options.
PHYS 3402	Modern Physics			PHYS 2426 and PHYS 2327.	Physics core requirement.
POLS 2306	Government/Political Science (Core)		070		See General Education Core for more details
Choose 1	Biophysics/Medical Physics Concentration				See degree plan for course options.
•	Choose 1 Choose 1 Choose 1 UNIV emester Total Hours Choose 1 MATH 2414 PHYS 2425 Choose 1 CSCI 1380 emester Total Hours MATH 2415 PHYS 2426 POLS 2305 Choose 1 PHYS 2327 emester Total Hours MATH 3341 Choose 1 PHYS 3402 POLS 2306	Choose 1	Choose 1 American History (Core) Choose 1 Integrative/Experiential Learning Option (Core) Choose 1 Creative Arts (Core) 1301 Learning Framework 1101 Academic and Career Success 1001 Living and Working by Design emester Total Hours Choose 1 Communication (Core) C MATH 2414 Calculus II C PHYS 2425 Physics for Scientists and Engineers I Choose 1 American History (Core) CSCI 1380 Computer Science I emester Total Hours Course F Course Title Management Science (Core) PHYS 2426 Physics for Scientists and Engineers II POLS 2305 Government/Political Science (Core) Choose 1 Social and Behavioral Sciences (Core) PHYS 2327 Physics for Scientists and Engineers III emester Total Hours MATH 3341 Differential Equations Choose 1 Biophysics/Medical Physics Concentration PHYS 3402 Modern Physics POLS 2306 Government/Political Science (Core) Choose 1 Biophysics/Medical Physics Concentration	Choose 1 American History (Core) 060 Choose 1 Integrative/Experiential Learning Option (Core) 090 Choose 1 Creative Arts (Core) 050 UNIV Academic and Career Success 1001 Living and Working by Design Emester Total Hours Choose 1 Communication (Core) C 010 MATH 2414 Calculus II C C PHYS 2425 Physics for Scientists and Engineers I 030/090 Choose 1 American History (Core) 060 CSCI 1380 Computer Science I 090 Emester Total Hours Course II Course Title 090 Emester Total Hours PHYS 2426 Physics for Scientists and Engineers II 030/090 POLS 2305 Government/Political Science (Core) 070 Choose 1 Social and Behavioral Sciences (Core) 080 PHYS 2327 Physics for Scientists and Engineers III emester Total Hours MATH 3341 Differential Equations Choose 1 Biophysics/Medical Physics Concentration PHYS 3402 Modern Physics POLS 2306 Government/Political Science (Core) 070 Choose 1 Biophysics/Medical Physics Concentration	Choose 1 American History (Core)

Symbols Key

Critical ('!'): sequence sensitive course.

Minimum Grade: A - Excellent; B - Good; C - Satisfactory; D - Below Average; CR - Credit; P - Passing; S - Satisfactory.

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

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.

2020-2021

!	Н	Course #	Course Title Min. Grade	GEC	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.
RD YEAR	3	Choose 1	Biophysics/Medical Physics Concentration			See degree plan for course options.
臣	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.
		emester Total Hours	No.			
<u> </u>	Н	Course #	Course Title Min. 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.
œ.		PHYS 4101	Laboratory Research		Consent of instructor.	Not needed if PHYS 4306 taken.
летн уед	3	PHYS 3301	Electromagnetic Theory I		MATH 2415 and PHYS 2426.	Physics core requirement.
FOU	12 Se	emester Total Hours				
	3	PHYS 3302	Electromagnetic Theory II		PHYS 3301.	Physics core requirement.
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			
		emester Total Hours				

120 TOTAL HOURS

(42) Advanced Institutional minimum credit hours

Approved: Wednesday, November 25, 2020

Revised: Tuesday, November 24, 2020