

**PHYSICS**  
Louisiana Tech University  
Curriculum as of 2020

Name \_\_\_\_\_

Date \_\_\_\_\_

CWID \_\_\_\_\_

Email \_\_\_\_\_@latech.edu

COURSE	PREREQUISITE	SCH	QTR	GRADE
PHYS 102		1		
103	PHYS 102	1		
104	PHYS 103	1		
201	MATH 241	3		
202	PHYS 201, MATH 242	3		
261	MATH 112 or MATH 240	1		
262	PHYS 261	1		
304	PHYS 202	3		
307	PHYS 202	3		
320		1		
404		2		
405		2		
406	PHYS 202, MATH 245	3		
407	PHYS 406	3		
410	MATH 245 (May take NSE 300 instead)	3		
416	PHYS 202	3		
417	PHYS 416	3		
418		1		
419	PHYS 418	1		
422	PHYS 202, MATH 245	3		
423	PHYS 422	3		
424	PHYS 416, 423, MATH 245	3		
435	Consent of Instructor	3		
CHEM 101	CHEM 100	2		
102	CHEM 101	2		
103	CHEM 100, 101 <sup>o</sup>	1		
104	CHEM 103, CHEM 102 <sup>o</sup>	1		
COMM 101		3	<input type="checkbox"/>	
ENGL 101		3		
102	ENGL 101	3		
MATH 241	MATH 240 or Placement by Exam	3		
242	MATH 241	3		
243	MATH 242	3		
244	MATH 243	3		
245	MATH 244	3		
NSE 300	ENGR 122 or PHYS 104, MATH 243	Can be taken in place of PHYS 410		
<b>ELECTIVES</b>				
Fine Art (ART 290, KINE 280, MUGN 290, or THTR 290)		3		
Biological Science		3		
Directed Elective		3		
Directed Elective		3		
Directed Elective		3		
Directed Elective		3		
Directed Elective		3		
Directed Elective		3		
Directed Elective		3		
Directed Elective		3		
Humanity		3		
Humanity		3		
Social Science		3		
Social Science		3		
<b>TOTAL SEMESTER HOURS</b>		<b>120</b>		

SUBSTITUTIONS		
COURSE	SCH	GRADE
1		
2		
3		
4		
5		

ADDITIONAL COURSES		
COURSE	SCH	GRADE
1		
2		
3		
4		
5		

GPA	
Rubric GPA	_____
MATH 241-244 GPA	_____

NOTES	
* requires grade of "C" or higher	
o credit or registration in	
R course in rubric	
1 Directed electives must be selected in consultation with advisor.	
2 Petitions must be filed for substitutions.	
3 A student must have a minimum 2.0 GPA on all hours pursued in courses designated: PHYS.	

ADDITIONAL COMMENTS

Advisor: \_\_\_\_\_

**PHYSICS**  
Louisiana Tech University

FRESHMAN YEAR					
Fall Quarter	Hr	Winter Quarter	Hr	Spring Quarter	Hr
<b>PHYS 102</b> <b>Introductory Physics</b>	1	<b>PHYS 103</b> <b>Introductory Physics</b>	1	<b>PHYS 104</b> <b>Introductory Physics</b>	1
MATH 240 <b>Math for Engr &amp; Science</b>	3	MATH 241 <b>Calculus I</b>	3	MATH 242 <b>Calculus II</b>	3
CHEM 100 <b>General Chemistry</b>	2	CHEM 101 <b>General Chemistry</b>	2	CHEM 102 <b>General Chemistry</b>	2
ENGL 101 <b>Freshman Composition I</b>	3	CHEM 103 <b>General Chemistry Lab</b>	1	CHEM 104 <b>General Chemistry Lab</b>	1
FYE 100 <b>Freshman Year Experience</b>	1	ENGL 102 <b>Freshman Composition II</b>	3	COMM 101 <input type="checkbox"/> <b>Principles of Communication</b>	3
	10		10		10
SOPHOMORE YEAR					
Fall Quarter	Hr	Winter Quarter	Hr	Spring Quarter	Hr
PHYS 201 <b>Physics for Engr &amp; Science I</b>	3	PHYS 202 <b>Physics for Engr &amp; Science II</b>	3	<b>PHYS 307</b> <b>Thermodynamics</b>	3
MATH 243 <b>Calculus III</b>	3	MATH 244 <b>Calculus IV</b>	3	MATH 245 <b>Differential Equations</b>	3
PHYS 261 <b>General Physics Lab</b>	1	PHYS 262 <b>General Physics Lab II</b>	1	BISC <b>Biological Science</b>	3
Social Science Elective**	3	Directed Elective $\diamond$	3	Social Science Elective**	3
	10		10		12
JUNIOR YEAR					
Fall Quarter	Hr	Winter Quarter	Hr	Spring Quarter	Hr
<b>PHYS 410</b> <b>Mathematical Methods in Phys. or NSE 300 (Offered Spring)</b>	3	<b>PHYS 417</b> <b>Modern Physics II</b>	3	<b>PHYS 424</b> <b>Quantum Mechanics</b>	3
<b>PHYS 416</b> <b>Modern Physics I</b>	3	<b>PHYS 419</b> <b>Modern Physics Lab II</b>	1	Directed Elective $\diamond$ (STAT 405 Recommended)	3
<b>PHYS 418</b> <b>Modern Physics Lab I</b>	1	Directed Elective $\diamond$ (MATH 308 Recommended)	3	Directed Elective $\diamond$	3
Humanity Elective <sup>+</sup>	3	Fine Arts Appreciation	3	Directed Elective $\diamond$	
	10		10		9
SENIOR YEAR					
Fall Quarter	Hr	Winter Quarter	Hr	Spring Quarter	Hr
<b>PHYS 422</b> <b>Physical Mechanics</b>	3	<b>PHYS 404</b> <b>Electronics</b>	2	<b>PHYS 304</b> <b>Physical Optics</b>	3
<b>PHYS 435A</b> <b>Undergraduate Research</b>	1	<b>PHYS 406</b> <b>Electricity &amp; Magnetism I</b>	3	<b>PHYS 320</b> <b>Optics Lab</b>	1
Directed Elective $\diamond$ (PHYS 412 Recommended)	3	<b>PHYS 423</b> <b>Physical Mechanics</b>	3	<b>PHYS 405</b> <b>Applied Electronics &amp; Electro.</b>	2
Directed Elective $\diamond$	3	<b>PHYS 435B</b> <b>Undergraduate Research</b>	1	<b>PHYS 407</b> <b>Electricity &amp; Magnetism II</b>	3
		Humanity Elective <sup>+</sup>	3	<b>PHYS 435C</b> <b>Undergraduate Research</b>	1
	10		12		10

Neither MATH 240 nor CHEM 100 count towards the Physics degree.

\* Requires grade of "C" or higher.

Courses in **bold** are *typically* offered only once per year.

Must be taken within first year of enrollment.

$\diamond$ Directed Electives chosen by the student in consultation with faculty advisor.

\*\*Social Science Electives can be selected from Anthropology, Criminal Justice, Economics, Geography, International Studies, Interdisciplinary, Political Science, Psychology, and Sociology.

<sup>+</sup>Humanities electives can be selected from Classical Studies, Communications, Foreign Language, History, Literature, Philosophy, Religious Studies, Interdisciplinary.

$\ddagger$  Medical Physics track will require 12 hours in Biologicals Science, 16 hours in Chemistry, 15 hours in Math, 6 hours in Social Science, and 53 hours in Physics and should be chosen by student in consultation with academic advisor.