

# BACHELOR OF ARTS

## PHYSICS



THOMAS MORE  
UNIVERSITY

### Approved Sample Curriculum (Even-Year Start) – 2<sup>nd</sup> Century Core

The mission of the Physics Department is to help students from any background attain insight into the principles and techniques used in physics and engineering, which allow us to understand and appreciate the beauty of the quantitative nature of our physical Universe. The Department endeavors to foster the scientific spirit and to develop the mathematical, analytical, and laboratory skills necessary to pursue graduate studies, research, or employment in physics or engineering fields through an emphasis on foundations in mechanics, electricity and magnetism, thermodynamics, and quantum mechanics.

#### First Year

Fall	CR	Spring	CR
FYE 150 First-Year Exploration	1	PHY 142/142L General Physics II	5
PHY 141/141L General Physics I	5	MAT 152 Calculus and Analytical Geometry II	4
MAT 151 Calculus and Analytical Geometry I	4	COM 105 Foundations of Public Speaking	3
History Core	3	Social Science Core	3
ENG 150 Literature, Writing, and Research	3		
<b>Subtotal</b>		<b>Subtotal</b>	
16		15	

#### Second Year

Fall	CR	Spring	CR
PHY 241/241L General Physics III	4	PHY 242 Modern Physics	3
MAT 201 Calculus and Analytical Geometry III	4	MAT 202 Differential Equations	4
MAT 320 Linear Algebra	3	LEARNING PLAN	3
Foreign Language	3	ENG 200+ Core	3
		Philosophy Core #1	1
<b>Subtotal</b>		<b>Subtotal</b>	
14		14	

#### Third Year

Fall	CR	Spring	CR
PHY 312 Dynamics	4	(PHYSICS Elective)	3
(PHYSICS Elective)	3	PHY 321 – Advanced Experimental Physics I	1
Outer Core Free Elective	3	PHY 490* Advanced Research Proposal	1
LEARNING PLAN	3	Outer Core or Free Elective	3
Outer Core or Free Elective	3	LEARNING PLAN	3
		Outer Core or Free Elective	3
<b>Subtotal</b>		<b>Subtotal</b>	
16		14	

#### Fourth Year

Fall	CR	Spring	CR
PHY 322 Advanced Experimental Physics II	1	PHY 498 Senior Seminar	1
PHY 491 Advanced Research Projects in Physics	2	LEARNING PLAN	3
LEARNING PLAN	3	Theology Core	3
Outer Core or Free Elective	3	Fine Arts Core	3
Philosophy Core #2	3	Outer Core or Free Elective	3
Theology Core	3	Outer Core or Free Elective	3
<b>Subtotal</b>		<b>Subtotal</b>	
15		16	

**Total Credits: 120**

NOTE: Students must earn a C or better (C- is insufficient) in all major and support courses required for the major to graduate.

\* The results of PHY 490 form the basis of the research in PHY 491; it may be necessary to re-take (for additional credit) PHY 490 before taking PHY 491. The LEARNING PLAN courses are determined between the student and the advisor and will depend on the post-college goals of the student.

Last Updated: Spring 2024

# BACHELOR OF ARTS

## PHYSICS



THOMAS MORE  
UNIVERSITY

### Approved Sample Curriculum (Odd-Year Start) – 2<sup>nd</sup> Century Core

The mission of the Physics Department is to help students from any background attain insight into the principles and techniques used in physics and engineering, which allow us to understand and appreciate the beauty of the quantitative nature of our physical Universe. The Department endeavors to foster the scientific spirit and to develop the mathematical, analytical, and laboratory skills necessary to pursue graduate studies, research, or employment in physics or engineering fields through an emphasis on foundations in mechanics, electricity and magnetism, thermodynamics, and quantum mechanics.

#### First Year

Fall	CR	Spring	CR
FYE 150 First-Year Exploration	1	PHY 142/142L General Physics II	5
PHY 141/141L General Physics I	5	MAT 152 Calculus and Analytical Geometry II	4
MAT 151 Calculus and Analytical Geometry I	4	COM 105 Fundamentals of Public Speaking	3
History Core	3	Social Science Core	3
ENG 150 English, Writing, and Research	3		
<b>Subtotal</b>	16	<b>Subtotal</b>	15

#### Second Year

Fall	CR	Spring	CR
PHY 241/241L General Physics III	4	PHY 242 Modern Physics	3
MAT 201 Calculus and Analytical Geometry III	4	PHY 321 Advanced Experimental Physics I	1
MAT 320 Linear Algebra	3	MAT 202 Differential Equations	4
Foreign Language Core	3	LEARNING PLAN	3
Philosophy Core #1	3	ENG 200+ Core	3
<b>Subtotal</b>	17	<b>Subtotal</b>	14

#### Third Year

Fall	CR	Spring	CR
PHY 312 Dynamics	4	PHY 490* Advanced Research Proposal	1
PHY 322 Advanced Experimental Physics II	1	LEARNING PLAN	3
Free Elective	3	Outer Core or Free Elective	3
LEARNING PLAN	3	Theology Core	3
Outer Core or Free Elective	3	Philosophy Core #2	1
		Outer Core or Free Elective	3
<b>Subtotal</b>	14	<b>Subtotal</b>	14

#### Fourth Year

Fall	CR	Spring	CR
(PHYSICS Elective)	3	(PHYSICS ELECTIVE)	3
PHY 491 Advanced Research Projects in Physics	2	PHY 498 Senior Seminar	1
LEARNING PLAN	3	LEARNING PLAN	3
Outer Core or Free Elective	3	Fine Arts Core	3
Theology Core	3	Outer Core or Free Elective	3
		Outer Core or Free Elective	3
<b>Subtotal</b>	14	<b>Subtotal</b>	16

**Total Credits: 120**

NOTE: Students must earn a C or better (C- is insufficient) in all major and support courses required for the major to graduate.

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