

# Master Physics Teacher Certificate

## *Modern Physics*

**Text: Ideas of Modern Physics** by Simon Dalley

Summer 2019

**Objectives: Upon successful completion of this course, students will be able to:**

- \* Explain how the main ideas of Modern Physics shape our world
- \* Analyze and interpret quantitative data in the context of Modern Physics
- \* Identify Ideas of Modern Physics within the appropriate State standards

Date (1-5 pm)	Pre-class reading and quizzes	
before Jul 8	<b>Chapter 1</b> Numbers in Science prelab	
Mon Jul 8	<b>Chapter 2</b>	CLASSICAL PHYSICS                      Pre-test & LAB - Measurement Error
Tues Jul 9	<b>Chapter 3 .1 - 3.2</b>	SPECIAL RELATIVITY                      LAB - Light Speed
Wed Jul 10	<b>Chapter 3.3 - 3.4</b>	SPECIAL RELATIVITY                      LAB - Moving Clocks
Thu Jul 11	<b>Chapter 4.1 - 4.2</b>	GENERAL RELATIVITY                      LAB - Free Fall
Fri Jul 12	<b>Chapter 4.3 - 4.4</b>	GENERAL RELATIVITY                      LAB - Hubble's Law
Mon Jul 15	<b>Chapter 5.1 - 5.3</b>	QUANTUM MECHANICS                      LAB - Laser Diffraction
Tues Jul 16	<b>Chapter 6.1 - 6.2</b>	ATOMS                      LAB - Hydrogen Spectrum
Wed Jul 17	<b>Chapter 6.3 - 6.4</b>	ATOMS                      LAB - Radioactivity
Thu Jul 18	<b>Chapter 7.1 - 7.2</b>	SYNTHESIS                      LAB - Particle ID
Fri Jul 19	<b>Chapter 7.3 - 7.4</b>	SYNTHESIS                      Documentary - Particle Fever & Post-test