



# IntroSTARS™ Syllabus

This is a self-paced, introductory course offered by B.R.I.E.F. meant for preparation for the DoubleSTARS™ course. The following modules are meant to be followed in successive order for better understanding of the general concepts that will be utilized throughout the DoubleSTARS™ curriculum. A study guide is provided and can be used to prepare for the test at the end of the IntroSTARS course!

## Module #1: What is Astronomy?

	Topic	Description
1	<a href="#">Introduction to IntroSTARS</a>	<i>What to expect from the IntroSTARS course</i>
2	<a href="#">Introduction to Astronomy</a>	<i>Historical overview of Astronomy</i>
3	<a href="#">Intro to Astrometry</a>	<i>The analytical discipline of astronomy</i>
4	<a href="#">Kepler's Laws of Planetary Motion</a>	<i>Kepler: The first astrophysicist &amp; his planetary model</i>

## Module #2: How do astronomers map the sky?

	Topic	Description
1	<a href="#">Celestial Sphere</a>	<i>The coordinate system used for mapping the sky</i>
2	<a href="#">Angular Measurements</a>	<i>How angles are used to determine star separation</i>
3	<a href="#">WCS Coordinates</a>	<i>The astronomer's precise coordinates</i>

## Module #3: How are distances measured?

	Topic	Description
1	<a href="#">Distances</a>	<i>Overview of distance measurement in space</i>
2	<a href="#">Parsecs &amp; Lightyears</a>	<i>The difference between lightyears and parsecs</i>
3	<a href="#">Parallax</a>	<i>How angles are used to determine distance</i>

## Module #4: How do stars move?

	Topic	Description
1	<a href="#">Newton's Laws of Gravity</a>	<i>Newton's mechanics and the laws of motion</i>
2	<a href="#">Stellar Motion</a>	<i>All the ways that stars can move</i>
3	<a href="#">Proper Motion</a>	<i>How stars appear to move over time to us on Earth</i>
4	<a href="#">Radial Motion</a>	<i>How to determine the movement of a star</i>
5	<a href="#">Binary Stars</a>	<i>An overview of gravitationally bound star systems</i>

## Module #5: What can we learn from starlight?

	Topic	Description
1	<a href="#">Light Basics</a>	<i>An overview of what light is</i>
2	<a href="#">Stars</a>	<i>Overview of Stars</i>
3	<a href="#">Electromagnetic Spectrum</a>	<i>The spectrum from radio to x-rays</i>
4	<a href="#">Luminosity &amp; Temperature</a>	<i>How the color of a star relates to its temperature</i>
5	<a href="#">Magnitudes</a>	<i>The brightness of a star and what it means</i>
6	<a href="#">Doppler Shift</a>	<i>How movement is determined from reading waves to and away from us</i>

## Module #6: What to expect from DoubleSTARS™

	Topic	Description
1	<a href="#">HR Diagram</a>	<i>The Hertzsprung-Russell Diagram: the way stars evolve</i>
2	<a href="#">DoubleSTARS Overview</a>	<i>An in-depth overview of double stars that will be observed in DoubleSTARS program</i>
3	JDSO papers	<i>Read <a href="#">Paper 1</a> and <a href="#">Paper 2</a> from the JDSO [THESE WILL BE PART OF YOUR QUIZ]</i>