Course Outline for

PHYS1120 — Introduction to Astronomy

Credits:	3 (3/0/0)
Description:	Meets MnTC Goal Area 3. This course includes a description of the universe covering our current understanding of the solar system, lunar and stellar study, interstellar gases and galaxies. It focuses on the development of modern astronomy and its techniques, astronomical coordinates, the use of astronomical instruments and recent discoveries in astronomy and cosmology. This non-lab course with lab-like experiences is designed for science and non-science majors.
Prerequisites:	MATH0090 AND Math 0090 or assessed into a higher math.
Corequisites:	(None)
Competencies:	1. Demonstrate understanding of scientific theories. 2. Analyze how the scientific method works from initial theory and modeling through observational/experimental confirmation or rejection. 3. Apply scientific thinking to problems in astronomy and cosmology. 4. Demonstrate an understanding of what astronomy entails through an examination of its history and evolution. 5. Develop insight into complex astronomical processes such as star formation, distance modeling, gravity, the electromagnetic spectrum and spectroscopy. 6. Interpret astronomical observations made using astronomical coordinates and optical instruments. 7. Express numerical uncertainty in a result and recognize sources of error in measurements. 8. Create graphs of data sets and use graphical analysis to compute results. 9. Navigate the night sky to map constellations, planets and stars. 10. Explain the impact of gravity on planetary motion and interpret the role and nature of light in astronomical observations. 11. Communicate with the vocabulary of astronomy experimental findings and observations. 12. Investigate recent research and discoveries in astronomy.

©2013 Minnesota State Community and Technical College

Downloaded: 5-22-2013

Goal Areas:	(None)

©2013 Minnesota State Community and Technical College

Downloaded: 5-22-2013