

**Link Summer Science Explorations 2012
at the
Kopernik Observatory & Science Center**

**Link 1 Residential Astronomy
Saturn: Mysterious Rings & Moons**

**COURSE OUTLINE
Tentative**

Week One, July 15-21:

Saturn: Mysterious Rings & Moons

- Labs:** Planetary Sketching
Orbital Simulations of Saturn's Moons
Saturn's Atmospheric Simulation
Simulation of Saturn's Atmosphere
Digital Imaging of Saturn
- Lectures & Presentations:** The Saturnian System
Cassini at Saturn
Planetary Ring Dynamics
- Field Trip:** Roberson Museum Planetarium
- Final Project:** Describing the Saturnian System

Week Two, July 22-28:
(Part 2)

Saturn: Mysterious Rings & Moons

- Labs:** Webcam Imaging of Saturn
Planetary Sketching
Basic Orbital Mechanics
Launch Windows
Ice Moon Simulation
- Lectures & Presentations:** The Origin of the Solar System
The Saturn Probes
Titan World of Mystery
Robotic Spacecraft
Launch Vehicles & Rocket Design
- Field Trip:** Roberson Museum Planetarium
- Final Project:** Plan and Design a Robotic Spacecraft
Mission to the Saturnian System