

1077-E1-592      **Toke L Knudsen\*** (toke.knudsen@oneonta.edu). *Astronomical Instruments Between Theory and Practice.*

As a historian of mathematics with a strong interest in mathematical astronomy, I developed a course centered around the design and construction of astronomical instruments. The course, *Ancient Mathematical Astronomy*, was offered for the first time at SUNY Oneonta as a special topics course in Fall 2010. The central idea for the course was that pairs of students would utilize the theory presented in the course to design an astronomical instrument of their choice, which would later be constructed by the Science Technician. In turn, the process of designing the instrument and subsequently using it, including the inevitable problems that arise along the way, would reinforce the theory. Instruments designed during the course included the astrolabe, the armillary sphere, the plane sundial, the armillary sundial, and the sextant. The talk will detail the technical and historical contents of the course, and the role of the instruments in its execution. (Received September 08, 2011)